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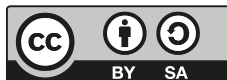

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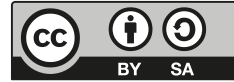

Preface

It has now become a tradition for the Preface to each new issue of *Theory and Practice of Second Language Acquisition* (TAPSLA) to provide a brief overview of the journal's history for new readers and introductory comment on the issue's contents for the regular readership.

TAPSLA was established in 2015 with the aim of providing a platform for Polish and international scholars working in the fields of second/foreign language learning (SLA) and bi-/multilingualism to showcase their work, share findings, good practice, and new ideas. As a relatively young journal, it appears to have achieved this goal. In its brief history of ten years, the journal has published over 120 articles and 23 book reviews, including contributions by some of the leading experts in the field, that is, Tammy Gregersen, David Singleton, Larissa Aronin, Peter MacIntyre, Sarah Mercer, and Jean-Marc Dewaele, to mention just a few. It has also achieved a truly worldwide reach, attracting submissions from every continent and every subfield of the discipline, and boasting an Editorial Board comprised of world-renowned scholars and experts in their areas of specialty. The journal's ever-growing presence in the academic world is further evidenced by the rapidly increasing number of Open Access downloads and indexing in Scopus (from 2018) and other popular research databases. It must be stressed that this success would not have been possible without the editorial team's commitment to high academic and ethical standards.

TAPSLA is published semiannually, using an open-access system. Consequently, all production steps—including paper submission, referee assignment, double-blind peer review, revision, copyediting, and production—are completed online. This process constitutes an efficient and cost-effective means of reporting and sharing research findings and is implemented by the University of Silesia Press (Wydawnictwo Uniwersytetu Śląskiego), a renowned academic publisher in Poland. Its skilled editorial staff manages the copyediting and

technical stages of the production process. All of the published issues may be viewed on the journal's webpage at www.tapsla.us.edu.pl and are available free of charge.

The journal's content covers a wide range of topics, from psycho- and sociolinguistic studies to purely linguistic and cognitively oriented research on language acquisition and use. The journal consistently strives to highlight the most recent theoretical perspectives and advancements in research methodology, as well as demonstrate how to apply them to the analysis of multiple language combinations against constellations of learner variables and cultural and educational practices. An additional objective is to promote young researchers from around the world while also disseminating works by renowned scholars. We believe that by supporting emerging talent who frequently offer original and creative ideas or provide new angles on widely researched topics, the journal creates a platform for innovation, cooperation, and discussion among researchers of all career stages and subspecialties.

The current issue (10/2) is no exception, bringing together 12 original research papers from across the world and from across the discipline. Their thematic range covers widely defined teacher development and beliefs, L2 vocabulary learning, textbook analysis, learner variables, cross-linguistic influence, and L2 discourse structure, thus offering an up-to-date snapshot of the vast and varied landscape of SLA research.

The issue opens with a paper by Joanna Nijakowska and Susie Russak, entitled "EFL Teacher Preparedness to Include Learners with Dyslexia: Israeli Context (ICFSLA 2023)." Using the DysTEFL-Needs Analysis Questionnaire (Revised) and the Teacher of English Preparedness to Include Dyslexics Scale, the Authors investigated Israeli EFL teachers' perceptions of their willingness to include dyslexic students in mainstream teaching programs and the teachers' professional training needs. These findings were compared with data obtained from Polish, Cypriot, and Greek teachers. Among the factors that the study singled out as significant were teachers' knowledge about dyslexia and their perceived efficacy in implementing inclusive teaching, as well as their attitude towards inclusion in general. The Authors also found that Israeli and Greek teachers evaluated their knowledge and teaching expertise higher than their Polish and Cypriot counterparts did. A similar trend was reported in connection with the general attitude to inclusion. The study concludes with a discussion of teacher training programs and stresses the need for teachers to receive targeted specialist education with respect to dyslexia.

Teacher perceptions and beliefs are also the subject of the second contribution by Sabina A. Nowak and Małgorzata Szulc-Kurpaska. In their text "Can We Modify Teacher Mindsets: Towards Well-being in Education," the Authors explore pre-service teachers' perspectives on the growth of their well-being

during teacher training. Using a mixed-methods design, the study identified two distinct types of teachers: those with a growth mindset and those with a fixed one. It also found correspondences between mindset type and attitudes to life and the teaching profession. In the study's final phase, a well-being intervention was applied to obtain insight into the modifiability of the respondents' beliefs. Based on these findings, the Authors stress the value of providing pre-service teachers with wellness training and discuss some implications for creating a paradigm framework for teacher well-being.

The third article in this volume, authored by Jose Belda-Medina and Miguel Luis Poveda-Balbuena, continues the analysis of pre-service teachers' beliefs by looking at computer games and their use in foreign language pedagogy. Titled "Digital Game-based Language Learning (DGBL): An Analysis of Polish and Spanish Teacher Candidates' Knowledge and Attitudes," the article reports on the findings of a mixed-methods project aimed at investigating the participants' views on the benefits and challenges of incorporating digital games in L2 English teaching. Both the Polish and Spanish respondents assessed the potential of digital games for language instruction favourably, despite some disparities in the length and frequency of their usage of digital technology. They also emphasized that their experience in using games to teach was insufficient.

The subsequent two papers shift the focus to learner variables. Luciana Cabral P. Bessa, Elisabete Mendes Silva, Galvão Meirinhos, and Rui Silva raise the question of motivation in higher education settings in Portugal in a text titled "Are Portuguese Higher Education Students Motivated to Study English as a Second/Foreign Language?" To answer this question, the Authors used the Academic Motivation Scale (Vallerand et al., 1989), which targeted amotivation, intrinsic motivation, and extrinsic motivation, and which they administered to a sample of 145 university students of L2 English. The results showed that the students were decidedly motivated and that it was intrinsic motivation that prevailed over extrinsic motives. This, in the Authors' opinion, raised further questions about the applied classroom methodology and its apparent failure to externally inspire the students to learn a foreign language. Motivation to learn an L2 in higher education and its dependence on social and psychological variables is also discussed by Marzia Shurovi in the contribution "The Nexus between Social Factors, Basic Psychological Needs and Task-value of Tertiary EFL Learners: A Bangladeshi Perspective." Drawing insight from self-determination theory (Ryan & Deci, 2000) and the expectancy-value framework (Eccles & Wigfield, 2002), the Author explored how the social variables of learners' father's education, mother's education, school location, and monthly earnings, mediated by three basic psychological needs, that is, autonomy, competence, and relatedness, impacted learners' perceptions of task value in learning English as a foreign language. The data for the study were collected using a questionnaire administered to 110 EFL tertiary learners of a private university

in Dhaka, Bangladesh. The results showed a network of statistically significant dependencies among the variables under investigation and provided a basis for a discussion of pedagogical implications.

The dynamics of L2 vocabulary learning are the subject of the sixth contribution titled "Exploring Lexical Sophistication in Second Language: An Analysis of Vocabulary Using a Word-Rating Method." Based on teacher ratings of 68 words from Hebrew textbooks for Arabic speakers, Eihab Abu-Rabiah identified four levels of lexical sophistication. The vocabulary from each level was then included in tests of passive and controlled active vocabulary. A group of seventeen Arabic students studying L2 Hebrew was requested to take the tests during two academic years, that is, in grades 11 and 12. The results revealed that the vocabulary from the most sophisticated band posed a challenge for the learners, who, with time, used it less accurately. At the same time, however, they improved their use of controlled-active vocabulary. L2 vocabulary acquisition is also the focus of Haotong Zhao's text, "The Role of Phonesthemes in EFL Learners' Word Acquisition." Phonesthemes are words bearing the same sound pattern and sharing similar meanings. The assumption underlying Haotong Zhao's research was that they could improve the effectiveness of vocabulary acquisition. This assumption was tested in two testing cycles. First, the guessing accuracy of phonesthemic versus prosaic words was compared, revealing considerable guessing accuracy for the former. This result indicated that EFL learners were sensitive to English phonesthemes before receiving explicit training. The second testing cycle used an experimental design to find out whether explicit instruction affected the recall of phonesthemic words. It found that students with background knowledge of phonesthemes effectively maintained phonesthemic vocabulary over time. The study concludes with recommendations for teaching.

The next contribution "The Cultural Component of Selected LSP Textbooks in the Area of Business and Their Potential for Developing Intercultural Competence" by Teresa Maria Włosowicz draws attention to the role of textbooks as representations of the target cultures. The article examines selected LSP textbooks in Business English, German, French, and Spanish, intending to establish how they developed intercultural skills. The analysis revealed that in the textbooks under analysis, cultural information was presented implicitly in the form of stylistic patterns and formulas that were appropriate to the culture in question. The Author concludes that the coursebooks shift the responsibility for raising students' conscious awareness of cultural norms to the LSP teacher. The idea that teaching cultural perspectives is an area of devolved responsibility and that some of them will not be represented directly in ELT coursebooks is also raised in Łukasz Matusz's article "The Sounds of Conflict: Lexical Representation of Anger in Listening Activities from Modern ELT Coursebooks." This time the focus is on how twelve coursebooks for adult learners of L2 English depict anger

in listening activities. The analysis shows that the subject is treated with great caution since the examined materials included mainly exclamations and non-verbal vocalizations and refrained from using swearwords. The paper ends with a discussion of the rationale behind teaching real-life English for real-life communication.

The subsequent two texts in this volume turn the spotlight from teaching materials to teaching practices. "The Impact of Task-based and Task-supported L2 Teaching on the Use of Connective Markers in Learners' Written Performance" by Tomasz Róg and Artur Urbaniak employs an experimental design to assess the effectiveness of popular task-oriented teaching methods in developing secondary school students' ability to write for-and-against essays. The study demonstrates a statistically significant positive influence of such teaching, thus providing further empirical support for current classroom trends, especially in the process of preparing students for secondary school graduation exams in Poland. Secondary school students are also the subject of a study by Rose Ann O. Torres and Ruth A. Ortega-Dela Cruz, who, using an online survey, investigated student learning preferences with respect to remote learning in economically less developed communities in the Philippines. The Authors found that as Gen Zs, the participants valued synchronous learning and interactive group activities, which provided ample opportunity for them to develop language skills and practice grammar. These findings as well as their implications for teaching are discussed in this volume's second last text titled "Facilitating Learning of Generation Z Learners towards Effective Remote English Language Learning."

Finally, Massaki Kamiya and Zhaosen Guo discuss the complexity of scope interpretation by Japanese learners of L2 English in relation to the English negative quantifier. This structure does not have an equivalent in Japanese. In their paper titled "Acquisition of L2 English Negative Quantifiers without Equivalent Lexical Items in an L1," the Authors show that scope interpretation is subject to cross-linguistic transfer from the L1 even when there seems to be nothing to transfer.

Given the depth and diversity of topics covered in this issue of *Theory and Practice of Second Language Acquisition*, we hope that it will attract the interest of a substantial number of members of the SLA research community. At the same time, we would like to express our thanks and appreciation to all the authors for their contributions and also warmly encourage researchers from Poland and other nations to continue submitting their work to our journal.

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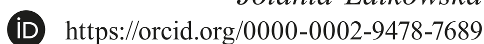
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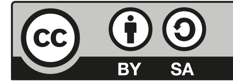

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EFL Teacher Preparedness to Include Learners with Dyslexia: Israeli Context (ICFSLA 2023)

Abstract

The aim of this study was to investigate Israeli English as a foreign language (EFL) teachers' perceived preparedness to include learners with dyslexia in mainstream classrooms (TEPID) and to verify whether there were cross-country differences in this respect. The study examined the effect of demographic variables on Israeli EFL teachers' TEPID and identified their professional development needs around inclusive teaching. Principal components analysis of the TEPID scale led to a two-factor structure, that is, knowledge about dyslexia and self-efficacy in implementing inclusive instructional practices with dyslexic EFL learners (F1), and stance towards inclusion (F2). Statistically significant effects were found for training, highest level of education, years and type of teaching experience with dyslexic learners, and type of certification in relation to F1, yet, only type of teaching experience with dyslexic EFL learners (direct contact and personal involvement in teaching) impacted teacher stance towards inclusion (F2). Additionally, Israeli teachers differed significantly from Polish and Cypriot teachers on both factors of the TEPID, but not from Greek teachers. Moreover, both Greek and Israeli teachers evaluated their knowledge and skills (F1) as well as stance towards inclusion (F2) higher than Polish and Cypriot teachers. Teachers stressed the need for practical information and training about how to teach students with dyslexia. Implications regarding content of teacher training are discussed.

Keywords: teacher preparedness, dyslexia, foreign language

English is the most widely taught additional language in the world today. It is a major language of commerce, social interaction, and academic advancement. In many countries it is also the first foreign language studied (EACEA/Eurydice, 2012). In Israel, as in many European countries, English as a foreign language (EFL) learning begins in primary school where lessons are given by teachers who are not necessarily proficient in English or trained specifically to teach EFL (Enever, 2014; Wilden & Porsch, 2017). Moreover, academic and pedagogical training in EFL instruction usually focuses more on later primary school and secondary school and less on earlier primary school years (Fuchs et al., 2019) leading to a situation where EFL teachers lack necessary knowledge and skills to teach the foundations of English literacy (Vaisman & Kahn-Horwitz, 2019; Wong & Russak, 2020). This situation is problematic as academic achievement of children is negatively affected when their teachers lack content knowledge (Zeng, 2023). In the case of EFL, the problem is more acute, because due to the inherent complexities of the orthography, teaching reading in English is "rocket science" (Moats, 2020), so that successful literacy acquisition requires that teachers possess explicit linguistic and pedagogical knowledge.

As in many countries, the Israeli education system has mandated an inclusion policy for children with special educational needs (SEN) requiring their inclusion in regular educational settings whenever possible. Thus, in any given regular education class there may be between 10–16% children with SEN (Shaked, 2020). While legislation mandates inclusion of children with SEN in the regular classroom, there is no legislation requiring all teachers to receive specific training in accommodating the needs of these pupils, nor is their budgeted time or specific funding for training courses (Russak, 2016). This leads to a situation where children with SEN are included in the regular education and EFL, and taught by teachers who may not necessarily have the prerequisite knowledge or tools to appropriately teach these children.

In this study, we were interested in examining the impact of different demographic variables on teacher perceived preparedness to include pupils with dyslexia in the regular EFL class in Israel. We were also interested in understanding teachers' professional training needs regarding teaching EFL to pupils with dyslexia. Finally, we wanted to compare teacher perceived preparedness to include pupils with dyslexia in the regular EFL class across four countries (Cyprus, Poland, Greece, and Israel).

Literature Review

Inclusion of Students with Dyslexia in EFL Mainstream Classes in Israel

English is the first foreign language that all pupils must study from the third grade on, although recently the Ministry of Education has begun to introduce English in first grade. In the early elementary school years, the emphasis is on beginning literacy skills including oral language and letter-sound knowledge. However, by the fifth-grade pupils are expected to read texts and the emphasis shifts to building vocabulary and comprehension skills. This focus persists through secondary school as well. Little if any attention is given to explicit reading and spelling instruction (Vaisman & Kahn-Horwitz, 2019). These directives are reflected in the curriculum and textbooks that teachers are required to use (Fuchs et al., 2019).

In line with educational trends across the world today, the educational system in Israel espouses a philosophy of inclusion of pupils with diverse needs in regular education (Shaked, 2020). Inclusion laws relate primarily to the rights of pupils with various special educational needs (SEN), to be included in the most appropriate educational setting, where pupils will have their complex educational needs suitably met. Beyond general guidelines regarding the types of services that students should receive, however, there are no specific directives for regular education teachers as to exactly how to include these students in the study of specific subject matter, such as English as a foreign language (EFL). This, even though the study of English is mandatory for all pupils beginning in primary school in order to complete their matriculation from secondary school. As a result, regular education teachers of EFL report a lack of necessary knowledge and skills to teach students with SEN (Russak, 2016).

The category of SEN includes multiple learning disabilities, among them dyslexia. Dyslexia is a learning disability that presents as difficulties with accurate and/or fluent word reading and/or spelling. It results from a deficit with phonological processing, or speech-based coding which affects processing oral and written forms of language (Wagner & Torgesen, 1987). Thus, dyslexia affects language acquisition processes across languages (Kormos, 2017a, 2017b, 2020; Kormos & Nijakowska, 2017; Kormos & Smith, 2023; Pugh & Verhoeven, 2018). Vocabulary knowledge and reading comprehension skills can also be impacted by poor word reading skills, however these difficulties are a by-product of dyslexia and not a core element of the disability (Kearns et al., 2019; Lyon et al., 2003).

While the impact of dyslexia on acquisition of basic literacy skills has been reported across languages, research suggests that orthographic depth also impacts the rate and accuracy of acquisition of literacy (Borleffs et al., 2019;

Seymour et al., 2003; Ziegler & Goswami, 2005). Thus, a child acquiring literacy in German, a language with a shallow orthography, will learn how to read words accurately in much less time than a child acquiring literacy in English (Landerl et al., 1997). In the case of bilingual children with and without dyslexia, reading will be acquired faster and more accurately in the language with the shallower orthography (Lallier et al., 2014). Within learner cross-language effects for orthographic depth have also been reported for acquisition of additional languages, suggesting that when the orthography of the L1 is shallow, acquisition of reading in an additional deeper orthography should be facilitated (van Daal & Wass, 2017). Thus, while dyslexia has a direct and detrimental impact on the acquisition of reading skills, the interplay between dyslexia and orthographic depth may further confound literacy acquisition processes. Therefore, it is imperative that teachers of EFL have solid linguistic knowledge in addition to an understanding about the impact of dyslexia on language learning.

EFL teacher training programs in Israel provide three training tracks: primary (first through sixth grades), secondary (seventh through twelfth grades) and multi-aged which includes both tracks. In the field, primary schools usually include first through sixth grades although there are some schools that go up to eight grades. Secondary schools are usually divided into junior high school (7–9 grades), and high schools (10–12 grades), although there are also regional six-year secondary schools (7–12 grades). Teachers teach multiple grades within each school setting and may also move from teaching one subject to another as long as they have the required certifications.

While laws require the inclusion of pupils with dyslexia and other special educational needs in the regular class setting, pre-service training programs in Israel place minimal emphasis on inclusion of students with SEN. Thus, pre-service EFL teachers receive little if any explicit instruction regarding the nature and needs of this population and have limited exposure to this population in their teaching practice. Similar situations have been reported in other countries where EFL teacher trainees are not required to take courses that deal with SEN pedagogy (Cimermanová, 2017; Lu et al., 2022) and lack exposure and experience teaching these students in their practice teaching (Loreman et al., 2013; Nel, et al., 2023; Pinnock & Nicholls, 2012). Moreover, neither the national curriculum nor the nationally approved textbooks include concrete practices for teaching students with any types of SEN. However, there is a Ministry document that suggests adaptations to the regular curriculum (Ministry of Education Pedagogical Affairs Department of Curricula Planning and Development, 2008), along with several textbooks that are not ministry approved as regular course books but are promoted as supplementary materials that teachers can use to teach struggling students alongside the approved materials, for example Russak (2000), Russak and Dobkins (1997, 1998). While these materials exist, they are

not part of any official program so only teachers who are interested and look for them will find them.

EFL Teacher Preparedness for Inclusion

EFL teacher preparedness for inclusion is an important factor shaping teachers' inclusive instructional practices and determining the way in which the needs of learners with dyslexia are met in EFL regular classroom. The concept of EFL teacher preparedness for including learners with dyslexia comprises the following building blocks: teacher knowledge and self-efficacy beliefs as well as stance towards inclusion (Nijakowska, 2019, 2022a). Teacher knowledge concerns understanding the nature of specific learning difficulties in reading and writing and their potential impact on the study of additional languages. This is linked to background linguistic content knowledge (including language and literacy concepts) and knowledge of effective instructional practices and intervention programs (Kahn-Horwitz, 2016; McCutchen et al., 2009; Nijakowska, 2022a; Podhajski et al., 2009).

To date, studies of teacher knowledge across subject areas have reported low scores. For example, in a study of conceptual knowledge about dyslexia among teachers who were required to provide evidence-based structured literacy instruction for students with dyslexia, inconsistent levels of terminological knowledge were found. Training significantly predicted dyslexia knowledge, while years of experience did not (Peltier et al., 2022). Similar effects for training over years of experience were reported to impact EFL teachers' perceptions regarding inclusion of students with dyslexia (Indrarathne, 2019; Kormos & Nijakowska, 2017; Nijakowska, 2014; Nijakowska et al., 2018). Scores on tests of teachers' content knowledge about basic language constructs for teaching literacy are also very low, indicating gaps in teacher knowledge in both English as L1 (McCutchen et al., 2002; Moats, 2020) and EFL (Goldfus, 2012; Vaisman & Kahn-Horwitz, 2019; Wong & Russak, 2020). Studies of EFL teachers' content knowledge for basic language concepts, show that teachers struggle with counting phonemes within words, and also lack knowledge of reading and spelling rules (Goldfus, 2012; Vaisman & Kahn-Horwitz, 2019; Wong & Russak, 2020). These low scores in English are particularly disturbing since, due to orthographic depth, the acquisition of reading and writing in English relies on solid knowledge about the complex ways in which phonemes map onto graphemes. Levels of teacher knowledge have been linked to student achievement as well. Research indicates that students whose teachers have low levels of literacy knowledge tend to exhibit lower levels of literacy skills than those who are taught by teachers with higher levels of teacher knowledge about literacy (McCutchen et al., 2002; Piasta et al., 2009; Zeng, 2023). Fortunately,

focused professional development can significantly improve teachers' knowledge and instructional skills, which in turn improves student learning outcomes (Zeng, 2023).

Teachers' self-efficacy beliefs, defined as teachers' self-reported perceptions and evaluations of how well they feel they are prepared to provide inclusive instruction in order to assure accessibility, participation, and success of all learners, are powerful in that they can influence actual teachers' instructional practices in the classroom (Tschannen-Moran & Woolfolk Hoy, 2001, 2007). In addition to the connection between teacher knowledge and student achievement, teacher knowledge is also associated with teachers' feelings of self-efficacy (Wray et al., 2022). The more pedagogical and content knowledge a teacher has, the more positive she may feel about her practices. Consequently, teachers who have high sense of self-efficacy show more willingness to use varied teaching strategies and demonstrate greater commitment and flexibility when taking on challenges in the classroom, such as including children with special needs (Achurra & Villardón, 2012; Ozder, 2011; Sharma & Sokal, 2016). Thus, teacher self-efficacy also impacts student self-efficacy beliefs and academic achievement (Guo et al., 2012).

An important factor that may influence teacher self-efficacy beliefs and instructional practices is prior contact and experience with teaching students with SEN. A review of teacher self-efficacy for inclusive education practices across 71 studies reported that direct contact with students with different SEN had a strong impact on feelings of self-efficacy (Wray et al., 2022). In support of this, a study comparing special and general education teachers in Greek secondary schools found that among general education teachers, neither age nor teaching experience were significant factors in self-efficacy towards inclusive practices, whereas among special education teachers, the most significant factor in shaping self-efficacy for inclusive practices related to direct contact with students with special needs (Kazanopoulos et al., 2022). Additional studies highlight the significant contribution of exposure and experience teaching students with dyslexia above and beyond training and years of experience (Nijakowska et al., 2018, Nijakowska, 2022b; 2022c; Peltier et al., 2022).

Teachers' stance towards inclusion can be shaped by numerous factors related for instance to the nature and severity of the disability, teachers' age, gender, personality, years of teaching experience, training, direct contact and teaching experience with learners with SEN as well as administrative support at school. Teachers who received high quality training on inclusion as well as those who had positive social and teaching encounters with learners with SEN and were supported by the school show more favourable attitudes towards inclusion of learners with SEN in regular classrooms (Avramidis & Norwich, 2002). Multiple studies across countries report that both pre-service and in-service teachers who have studied special education and/or have teaching certifica-

tion in special education report positive attitudes towards inclusion of students with different SEN in their classes (Lu et al., 2022; Russak, 2016; Tümkaya & Miller, 2020). Teachers with experience teaching in special education expressed higher feelings of self-efficacy for inclusive practices (Kazanopoulos et al., 2022). However, studies also report that teachers of EFL usually lack training in special education (Lu et al., 2022; Russak, 2016), unless they were able to obtain multiple teaching certifications, as is the case in Israel. Importantly, research findings confirm the effectiveness of teacher training in developing, modifying and boosting teachers' self-efficacy beliefs and attitudes towards inclusion in general and EFL educational context (Kormos & Nijakowska, 2017; Nijakowska, 2022b, 2022c; Sharma & Nuttal, 2016; Sharma & Sokal, 2015).

In this study, we focused specifically on the SEN dyslexia in the context of the EFL teaching and learning because of the direct and adverse connection between dyslexia and literacy acquisition across languages (Ziegler & Goswami, 2005). The aim of the study was to investigate Israeli EFL teachers' perceived preparedness to include learners with dyslexia in regular education classrooms and to verify whether cross-country differences exist in this respect. The study also determined the effects of demographic variables (training, teaching experience, level of education, type of certification, type of teaching experience with learners with dyslexia) on Israeli EFL teachers' beliefs about how well they think they are prepared for inclusive teaching of learners with dyslexia and identified their professional development needs in this area, using the teachers' perceived preparedness to include learners with dyslexia in mainstream classrooms (TEPID) questionnaire. The reported study addressed the following research questions:

RQ1: Do pre-service EFL teachers (teacher trainees) differ from in-service EFL teachers on TEPID?

RQ2: Does the overall teaching experience (operationalized as years of teaching) have an impact on EFL teachers' TEPID?

RQ3: Do EFL teachers with higher levels of education (degrees) differ from teachers with lower levels of education (degrees) on TEPID?

RQ4: What is the relationship between types of certification and TEPID scores?

RQ5: Does the type of experience relating to teaching EFL learners with dyslexia have an impact on the EFL teachers' TEPID?

RQ6: Do pre-service and in-service EFL teachers from Israel differ from pre-service and in-service teachers from Greece, Cyprus, and Poland regarding beliefs about their preparedness to include EFL learners with dyslexia in mainstream classrooms (TEPID)?

RQ7: What are the Israeli EFL teachers' professional development needs around inclusive teaching?

Method

Participants

Data were collected from 180 EFL pre-service—46 (26%) and in-service—134 (74%) teachers in Israel. Most of the study participants—149 (83%) were female; 86 (48%) were 46 and above, 51 (28%) were between 35–45 years old. Younger teachers, 25 and below and between 26–35 years of age, constituted 10% and 14% of the sample respectively. As far as the number of years of teaching experience is concerned, 85 (47%) respondents reported more than 10 years of teaching experience, 28 (16%) had been teaching for 6–10 years, 53 (29%) had 1–5 years of experience, while 14 (8%) had no teaching experience. Seven (4%) had completed secondary school, 69 (38%) held BA degree, 93 (52%) MA, and 7 (4%) PhD.

Since Israeli EFL teachers usually teach multiple grades and some schools include primary and lower secondary grades and some include lower and higher secondary grades as explained above, teachers were allowed to mark multiple answers to four questions. Since the categories were not mutually exclusive, the reported numbers (*n*) for types of school (grades), pupils' age, experiences teaching students with dyslexia, and type of certification do not add up to the number of participants ($n = 180$) but reflect the diverse teaching contexts and experiences for EFL teachers in Israel (see Table 1). Most teachers taught in lower secondary school (Jr. High, grades 7–9)—96 (27%) and upper secondary school (High School, grades 10–12)—119 (34%), 45 (13%) in primary school, while only 5 (1%) in kindergarten, 5 (1%) in language schools, and 23 (7%) at the tertiary level (college, university). As many as 57 (16%) teachers reported they conducted one-to-one lessons. The lower representation in the primary school and kindergarten could be due to low levels of English among those who teach in these contexts (Wilden & Porsch, 2017). As these teachers may not feel confident in their levels of English, they tend to shy away from filling out surveys written in English.

As many as 77% of the teachers reported some experience teaching learners with dyslexia, ranging from more general classes with some students with dyslexia—156 (36%) and classes with pupils with exemptions from testing due to dyslexia—52 (12%) to closer contact in special classes for students with dyslexia 46 (10.5%) and one-to-one lessons 81 (18.5%). Most study participants—141 (47%)—held a teaching certificate for secondary schools; 84 (28%) were qualified to teach in primary schools and 40 (13%) in special education. Twenty-eight (9%) reported they also had other teaching qualifications, but here too, as explained above, teachers could have multiple certifications. Nine (3%) participants admitted they had not been awarded any qualifications yet.

Specifically, in Israel many teachers get a multi-age certification meaning that they are certified for both primary and secondary school. Table 1 presents the demographic characteristics of the study population.

Table 1

Demographic Information about the Study Participants

Variables	*n*	[%]
Level of training		
Pre-service	46	26
In-service	134	74
Gender		
Male	31	17
Female	149	83
Age		
25 or below	18	10
26–35	25	14
35–45	51	28
46 or above	86	48
Teaching experience		
None	14	8
1–5 years	53	29
6–10 years	28	16
More than 10 years	85	47
Type of school*		
Kindergarten	5	1
Primary school	45	13
Lower secondary school (Jr. High, grades 7–9)	96	27
Upper secondary school (High School, grades 10–12)	119	34
College, University	23	7
Language school	5	1
One-to-one tuition	57	16
Not applicable	5	1
Age of pupils taught*		
Under 5	5	1.5
6–12 years old	51	16
13–15 years old	112	36
16–18 years old	112	36
Older than 18 years old	30	10
Not applicable	2	0.5
Experience teaching pupils with dyslexia*		
Classes without students with dyslexia	87	20
Classes with some students with dyslexia	156	36
Special classes for students with dyslexia	46	10.5
Classes with pupils with exemptions from testing due to	52	12
dyslexia	81	18.5
One-to-one sessions with dyslexic children	14	3
Not applicable		

Variables	*n*	[%]
Level of education completed (highest degree)		
Secondary school	7	4
Bachelor's degree	69	38
Master's degree	93	52
PhD	7	4
Other	4	2
Type of certification*		
EFL Primary school	84	28
EFL secondary school	141	47
Special education	40	13
Other	28	9
Not applicable	9	3

* The reported *n* in particular categories do not add up to 180 because the categories were not mutually exclusive (multiple answers were allowed in these questions).

Instruments

To measure the pre-service and in-service Israeli EFL teachers' beliefs relating to their preparedness to include learners with dyslexia in mainstream classrooms the slightly adapted version of the DysTEFL—Needs Analysis Questionnaire Revised (DysTEFL-NAQ-R) (Nijakowska et al., 2018; 2020) was used. To ensure that the participants understood who the target population was, the introduction to the survey specified that we were using the term dyslexia to describe students who have difficulties with accurate and/or fluent word recognition, word decoding, spelling and/or reading comprehension as a consequence of reading difficulties (Lyon et al., 2003). The questionnaire was provided in English and all responses were received in English.

The demographic part of the questionnaire was composed of ten questions, nine retained from the original questionnaire, collecting information relating to the participants' level of training (pre-service vs. in-service), country where they teach or study to become teachers, gender, age, teaching experience (in years), highest level of education (degree), type of school they teach at, their students' age, type of experience in teaching students with dyslexia. Multiple answers could be selected to the last three questions. The additional question (also allowing multiple answers) asked about the type of teaching certificate teacher had been awarded.

The 24-item TEPID (Teacher of English Preparedness to Include Dyslexics) scale constituted the second part of the questionnaire, which referred to accommodating the learning needs of EFL learners with dyslexia. Each item was a statement followed by a 6-point Likert scale, ranging from 1 = "definitely not true of me" to 6 = "definitely true of me." The higher the overall score the greater the pre-service and in-service EFL teacher's preparedness to include

learners with dyslexia in EFL classrooms. The generalizability of the TEPID scale was confirmed by the analysis of measurement invariance across different ethnic groups. The scale proved to be a useful tool for investigating perceived teacher preparedness to include learners with dyslexia and variables that influence TEPID and for comparing the results across countries (Nijakowska et al., 2020).

Data used to verify the Israeli EFL teachers' professional training needs on dyslexia and inclusive instructional practices was collected via the final part of the questionnaire including four questions which asked about prior training on dyslexia and inclusive instructional practices, as well as professional training needs. Questions concerning the preferred format of the training, content/topics, tasks, and activities allowed to select multiple answers.

Procedure

The questionnaire was administered online using the Google Forms tool. Invitation to participate in the study was popularised via professional and teacher training networks, teachers' associations, conferences, and events. In an opening letter to teachers, which was appended at the beginning of the survey, respondents were informed about the purpose of the study. Participation in the study was voluntary and anonymous. The data was collected in 2022, for the period of four months. Only responses from participants who indicated that they either teach or study to teach EFL in Israel were analysed. Only complete responses were analysed.

Results

Factor Analysis

To answer the research questions, we first conducted a principal component analysis (PCA) to examine the factorial structure of the preparedness scale on the Israeli sample on all data (24 items) with orthogonal rotation (varimax). All 24 items correlated at least .3 with at least one other item. The sample (n = 180) met the criterium of having between 5–10 participants per variable. The Kaiser-Meyer-Olkin measure verified the sampling adequacy. KMO equalled .93, which is superb, well above the acceptable limit of .5 (Field, 2009). All the diagonals of the anti-image correlation matrix (KMO values for individual items) were well over .5, with the lowest value of .759, justifying the inclusion

of all the items in factor analysis. Bartlett's test of sphericity was significant for the dataset ($\chi^2(276) = 2958.46$, $p < .001$) and indicated that correlations between items were sufficiently large for PCA. The communalities were all above .3, indicating that each item shared some common variance with other items. The sample ($n = 180$) was well suited for the analysis.

Four components had eigenvalues over Kaiser's criterion of 1 and overall, they explained 65.30% of the variance. The eigenvalue for factor 1 was 10.93, for factor 2 it equalled 2.44, for factor 3 it was 1.25, and for factor 4 it had a value of 1.06. The initial eigenvalues showed that the first factor explained 45.54% of the variance, the second factor 10.17% of the variance, the third factor 5.19%, and, finally, the fourth factor 4.40%. However, the four-factor solution was not retained. The two-factor solution was chosen instead due to several reasons. The four-factor solution lacked theoretical grounding and proved difficult to interpret. The scree plot analysis showed that the scree flattened out and tailed downwards after the second factor. Inspecting the factor loading revealed that the number of primary loadings in factors 3 and 4 was not sufficient, there was only one primary loading in factor 3 (item 1) and no primary loadings in factor 4. All the other loadings for factors 3 and 4 were small and very small. Two items (1 and 11) proved problematic. Item 1 loaded primarily on factor 3 but it also loaded on factor 1 and 4 (small loadings). Item 11 had a small primary loading on factor 1 and a comparable loading on factor 3, in addition it also loaded on the remaining two factors. Items 1 and 11 were removed from the scale. For all further analysis 22 out of 24 items were used. All the remaining items had primary loadings over .66 and .51, for factor 1 and 2 respectively.

A two-factor solution involved the following factors underlying the construct of preparedness: factor 1 (F1)—beliefs about possessed knowledge of dyslexia and self-efficacy in implementing inclusive instructional practices with dyslexic learners (knowledge and skills) (16 variables included, cut-off point .666) and factor 2 (F2)—beliefs about general inclusion principles towards dyslexic FL learners (stance towards inclusion) (6 variables included, cut-off point .516). The reached solution is consistent with an earlier cross-country study (involving the Polish, Greek and Cypriot context) on EFL teacher preparedness to include learners with dyslexia in mainstream classroom which used the TEPID scale (Nijakowska, 2022a; Nijakowska et al., 2018, 2020).

The reliability of the preparedness subscales ranged from reliable to very highly reliable. Self-efficacy beliefs and knowledge scale had a very high internal consistency ($\alpha = .959$). The attitude scale was reliable ($\alpha = .775$) (Cohen et al., 2011). Table 2 shows the factor loadings after rotation along with item means and standard deviations.

Table 2

Factor Loadings after Rotation for 24 Items of the Preparedness Scale, Means and Standard Deviations for the Israeli Sample (n = 180)

Item	Factor loading Means and SD					
	F1	F2	F3	F4	M	SD
8. I can modify the way teaching materials are presented to accommodate individual learning needs of learners with dyslexia.	.884				4.13	1.42
7. I can provide differentiated instruction to cater for the individual needs of learners with dyslexia.	.857				4.06	1.49
14. I can help foreign language learners with dyslexia to develop effective learning strate-gies.	.847				4.33	1.32
24. I can differentiate tasks and assignments to cater for individual learning needs of learners with dyslexia.	.844				4.22	1.37
16. I can foster autonomy in foreign language learners with dyslexia.	.812				4.03	1.30
19. I am familiar with other learning difficul-ties often associated with dyslexia.	.812				4.27	1.41
10. I can personalize assessment techniques to evaluate progress of my foreign language learners with dyslexia.	.801				4.13	1.42
6. I am familiar with the signs of dyslexia.	.793				4.56	1.49
18. I know what to do if I think that one of my students has dyslexia.	.793				4.28	1.43
22. I can manage the classroom environment to cater for individual learning needs of learners with dyslexia.	.764				4.14	1.36
12. I am familiar with the nature of dyslexia.	.756				4.41	1.45
3. I can give feedback to learners with dyslexia in such a way that it boosts their self-esteem.	.749				4.64	1.34
23. I am familiar with the local educational legislation/policy concerning learners with dyslexia.	.745				3.67	1.67
21. I am familiar with the accommodations that learners with dyslexia are entitled to in taking foreign language proficiency exams.	.693				4.37	1.50

Item	Factor loading Means and SD					
	F1	F2	F3	F4	M	SD
2. I am familiar with the difficulties learners with dyslexia experience in foreign language learning.	.690				4.81	1.43
9. I am familiar with the principles of multisensory teaching and learning.	.666				4.39	1.56
*11. I believe foreign language teachers should have high expectations for their learners with dyslexia.**	*.463*		*.435*		*4.46*	*1.31*
17. I believe it is important for foreign language teachers to collaborate with parents/ families of their learners with dyslexia.		.637			5.36	.97
20. I believe collaborative teamwork with a range of educational professionals is important for teachers of foreign language learners with dyslexia.		.606			5.49	.82
15. I believe foreign language teachers should differentiate their approach to learners.		.583			5.25	1.01
5. I believe teacher behaviour in a language classroom influences self-esteem of learners with dyslexia.		.572			5.69	.62
13. I believe developing self-determination in foreign language learners with dyslexia is important.		.565			5.24	.93
4. I believe foreign language learners with dyslexia need accommodations in the inclusive language classroom.		516			5.46	.88
*1. I believe foreign language learners with dyslexia benefit from attending regular classes in inclusive education.**			*.707*		*4.13*	*1.31*

Note: Factor loadings < .3 and cross-loadings were suppressed
Extraction Method: Principal Component Analysis.
Rotation method: Varimax with Kaiser Normalization
Two factor solution was retained.
*Items 1 and 11 were removed from further analysis

Effect of Demographic Variables on Teacher Preparedness (TEPID)

The study aimed to determine the effects of demographic variables (training, teaching experience, level of education, type of certification, and type of teaching experience with learners with dyslexia) on beliefs of EFL teachers in Israel

regarding their preparedness to include learners with dyslexia in mainstream classrooms.

Our first research question (RQ1) asked whether Israeli pre-service EFL teachers (teacher trainees) differed from in-service EFL teachers in their perceptions regarding their preparedness to include learners with dyslexia. To answer RQ1, Mann-Whitney U test was used to investigate whether the between-group differences were statistically significant regarding each factor. In-service teachers (n = 134, M = 4.40, Md = 4.56, SD = 1.11) scored higher on F1 than teacher trainees (pre-service teachers) (n = 46, M = 3.92, Md = 4.06, SD = 1.11) and this difference was statistically significant, with a small to medium effect size (U = 2335.0, z = –2.451, p < .01, r = .20). This means that in-service teachers' perceived knowledge and self-efficacy beliefs (knowledge and skills) was higher than that of teacher trainees. In-service teachers (n = 134, M = 5.42, Md = 5.58, SD = .58) scored higher on F2 than pre-service teachers (n = 46, M = 5.39, Md = 5.50, SD = .68) but this difference was not statistically significant (U = 3078.0, z = –.013, p = .989). Mann-Whitney U test indicated that teacher trainees did not differ from in-service teachers regarding their stance towards inclusion.

RQ2 asked if the overall teaching experience (operationalized as years of teaching) impacts in-service EFL teachers' TEPID. To answer RQ2, Independent-Samples Kruskal-Wallis test was calculated. The test indicated that teaching experience influenced the respondents' beliefs about their knowledge and skills (F1) with moderate effect size (H(3) = 27.347, p < .001, ε^2 = .12), but did not impact their stance towards inclusion (F2) (H(3) = .653, p = .884). Epsilon squared was calculated to denote effect sizes of identified differences (Tomczak & Tomczak, 2014). Mann-Whitney U test was used to follow up the finding concerning F1. Pairwise comparisons revealed statistically significant differences in perceived knowledge and self-efficacy beliefs (F1) between the participants who had 1–5 years of teaching experience (n = 53, M = 3.71, Md = 3.94, SD = .96) and those who had 6–10 years of teaching experience (n = 28, M = 4.40, Md = 4.50, SD = 1.22) (U = –34.956, p = .024), as well as those who had more than 10 years of teaching experience (n = 85, M = 4.67, Md = 4.75, SD = .95) (U = –46.105, p < .001). The significance values were adjusted by the Bonferroni correction for multiple tests (Field, 2009). The more years of teaching the participant had, the more positive her perceptions were regarding perceived knowledge and self-efficacy beliefs (F1). No impact for years of teaching was found on F2.

RQ3 asked about how EFL teachers' the highest completed level of education (degree) relates to their scores on F1 and F2. Independent-Samples Kruskal-Wallis test showed that the level of education (degree) influenced teachers' beliefs about their knowledge and skills (F1) with weak effect size (H(4) = 11.282, p = .024, ε^2 = .03) but was not related to their stance towards

inclusion (F2) ($H(4) = 7.570$, $p = .109$). The higher the completed level of education (degree), the higher the score on F1. However, Mann-Whitney U test indicated statistically significant differences in perceived knowledge and self-efficacy beliefs (F1) only between PhD holders ($n = 7$, M = 5.16, Md = 5.69, SD = 1.32) and those who graduated from secondary school ($n = 7$, M = 3.63, Md = 3.69, SD = .63) (U = –83.714, $p = .026$).

RQ4 concerned the relationship between types of certification and TEPID scores. Certificate type categories were derived from statements asking about the participants' certification (e.g., "I have a teaching certificate in EFL primary/secondary school"). According to these statements the participants were then divided into three distinct groups of certification qualifications: participants who had EFL certificate only ($n = 115$), participants who had EFL and special education certificates ($n = 35$), and a group that did not meet either of these criteria and were termed as 'other' ($n = 30$). The category of EFL certification included those who had indicated that they were certified in primary, secondary and both primary and secondary school. To answer RQ4, the relationship between certification and factors 1 and 2 was tested. A one-way ANOVA was performed. The analysis showed a significant association for F1 only, where participants who had EFL and special education certificates (M = –0.57, SD = 0.74) scored significantly higher, compared to the other two groups (M = –0.08, SD = 1.00; M = –0.37, SD = 1.00, respectively, $F(2,177) = 8.66$, $p < 0.001$). These results indicate that participants with special education certificate reported higher levels of knowledge and skills. The results for F2 were insignificant.

RQ5 looked at how the type of experience relating to teaching EFL learners with dyslexia associate with EFL teachers' TEPID. To answer RQ5, a series of six t-tests were performed. Each test compared the mean scores of F1 and F2 between groups of participants differentiated by their experience with teaching EFL learners with dyslexia. Experience with teaching EFL learners with dyslexia was derived from the answers (yes/no) to type of teaching experience (e.g., "I have taught classes where there are no students with dyslexia" (yes/no). The results of this analysis are presented in Table 3. As seen, teachers who had experience with teaching students with dyslexia reported higher levels of knowledge and skills (F1). These results were significant across all statements. With regards to F2, significant results were found for the statements "I have taught special classes for students with dyslexia" and "I have taught one-to-one sessions for students with dyslexia," indicating that those who responded "yes" to these statements reported a stronger positive stance towards inclusion. All significant results survived FDR correction.

Table 3

Questions Relating to Type of Teaching Experience with Students with and without Dyslexia

Item	Factor	Yes				No					
		n	M	SD	SE	*n*	M	SD	SE	t-test	Cohen's d
I have taught classes where there are no students with dyslexia	1	87	-0.18	0.97	0.10	93	0.17	1.00	0.10	**-2.40***	-0.36
	2	87	-0.11	1.05	0.11	93	0.10	0.94	0.10	-1.46	-0.22
I have taught classes where there are some students with dyslexia	1	156	0.10	0.94	0.08	24	-0.67	1.15	0.23	**3.62*****	0.79
	2	156	0.01	1.00	0.08	24	-0.07	1.02	0.21	0.35	0.08
I have taught special classes for students with dyslexia	1	46	0.57	0.82	0.12	134	-0.20	0.98	0.08	**4.75*****	0.81
	2	46	0.38	0.67	0.10	134	-0.13	1.06	0.09	**3.02****	0.52
I have taught classes with students who are exempted from testing because they have dyslexia	1	52	0.44	0.77	0.11	128	-0.18	1.03	0.09	**3.91*****	0.64
	2	52	0.09	0.95	0.13	128	-0.04	1.02	0.09	0.80	0.13
I have taught one-to-one sessions for students with dyslexia	1	81	0.38	0.86	0.10	99	-0.31	1.00	0.10	**4.95*****	0.74
	2	81	0.22	0.79	0.09	99	-0.18	1.11	0.11	**2.68***	0.70

RQ6 aimed to verify whether EFL teachers from Israel differed from teachers from Greece, Cyprus, and Poland regarding beliefs about their preparedness to include EFL learners with dyslexia in mainstream classrooms (TEPID). Nijakowska et al. (2018, 2020) found out that Greek teachers differed significantly from teachers from Cyprus and Poland and that there were no statistically significant differences between teachers from Poland and Cyprus on both factors of TEPID. In order to answer RQ6 we used data on Cypriot, Polish, and Greek EFL from Nijakowska et al.'s (2018, 2020) study.

Independent-Samples Kruskal-Wallis test indicated that the country in which study respondents teach or study to teach influenced their beliefs about knowledge and skills (F1) with small effect size ($H(3) = 18.316$, $p < .001$, $\varepsilon^2 = .02$) and impacted on their stance towards inclusion (F2) with small effect size ($H(3) = 17.650$, $p < .001$, $\varepsilon^2 = .02$). Mann-Whitney U test was used to follow up the findings concerning F1 and F2. Pairwise comparisons revealed statistically significant differences in perceived knowledge and self-efficacy beliefs (F1)

between Israeli (n = 180, M = 4.28, Md = 4.34, SD = 1.12) and Polish EFL teachers (n = 158, M = 3.89, Md = 4.09, SD = 1.21) (U = –63.860, p = .031) as well as Israeli and Cypriot teachers (n = 155, M = 3.93, Md = 3.93, SD = 1.05) (U = –73.919, p = .008). Similarly, teachers from Israel (n = 180, M = 5.42, Md = 5.50, SD = .60) differed from teachers from Poland (n = 158, M = 5.21, Md = 5.33, SD = .67) (U = –79.171, p = .003), as well as teachers from Cyprus (n = 155, M = 5.21, Md = 5.33, SD = .76) (U = –65.347, p = .025) regarding their stance towards inclusion (F2) and those differences were statistically significant. Statistically significant differences were not found between the Israeli and Greek teachers (F1: n = 233, M = 4.28, Md = 4.38, SD = .94; F2: n = 233, M = 5.41, Md = 5.50, SD = .55) regarding their perceptions of preparedness to include learners with dyslexia with regard to both factors.

EFL Teachers' Professional Development Needs on Inclusive Teaching

Our last research question (RQ7) explored the Israeli EFL teachers' perceived professional development needs around inclusive teaching. As many as 177 teachers filled in the last part of the questionnaire related to professional development needs on inclusive teaching. Data were obtained from four sets of statements. In set one teachers marked their answers on a 6-point Likert scale ranging from "definitely not true of me" to "definitely true of me." In sets two through four respondents could choose more than one answer. The first set focused on prior training and further training needs. As shown in Table 4, more than half (56%) of the in-service teachers indicated they had gained some knowledge about EFL and dyslexia from courses in higher education and teacher training institutions. As many as 60% of the respondents claimed to be self-educated in the area of teaching EFL to dyslexic learners learning from available resources. Most teachers (92%) felt they needed more information about language teaching methods that are effective for dyslexic learners and 86% of the teachers expressed interest in further training around teaching English to learners with dyslexia.

Table 4

EFL Teachers Prior Training and Professional Training Needs on Dyslexia and Inclusive Instructional Practices (in %)

Questions	Definitely not true of me	Mostly not true of me	Somewhat not true of me	Somewhat true of me	Mostly true of me	Definitely true of me
I learnt about how to teach English to learners with dyslexia in my courses at college/university/teacher training institutions.	18% (32)	12% (21)	14% (25)	15% (28)	18% (33)	23% (41)
I learned about how to teach English to learners with dyslexia on my own from available resources.	14% (26)	14% (26)	12% (21)	19% (34)	20% (36)	21% (37)
I feel the need for more information on the language teaching methods effective with dyslexic learners.	1% (3)	3% (5)	4% (7)	17% (30)	**18%** (32)	**57%** (103)
I am interested in further training in the area of teaching English to learners with dyslexia.	4% (8)	4% (8)	6% (10)	13% 23)	**17%** (31)	**56%** (100)

The second set addressed the ideal format of training on EFL and dyslexia. Here, 81% of the participants marked face-to-face training workshops, 80% online resources that can be used for self-study, 77% online learning course, 51% printed self-study materials, and 14% indicated other preferred training formats. Among the 23 other comments, 61% related to on-site training, supervision, observation, and practice in teaching pupils with dyslexia and observing master teachers in real time. The third set addressed preferred content of training courses. Content relating to teaching and assessing language learners with dyslexia received the highest score (all 90% or above) followed by content relating to learning difficulties associated with dyslexia. The distribution of scores across the nine content options can be seen in Table 5.

Table 5

Course Content That Teachers Expressed Interest in Learning More about

Topic	Responses reported in percentages*
Language teaching techniques that assist language learners with dyslexia	97
General teaching and classroom management tips for teaching language learners with dyslexia	92
Assessment of learners with dyslexia in the language classroom	91
Problems dyslexia causes in language learning	90
Learning difficulties associated with dyslexia	89
Accommodations that learners with dyslexia are entitled to in high-stakes exams	85
Nature of dyslexia	75
How dyslexia is diagnosed	73
Other topics	17

The fourth set pertained to which components (tasks and activities) of a training course the teachers felt would be helpful. There were 12 choices which are reported here in order of preference according to percentage scores: watching videos of classrooms (94%), learning how to design language teaching materials for learners with dyslexia (92%), listening to/reading interviews with learners with dyslexia (91%), listening to/reading interviews with teachers of dyslexic learners (89%), designing lesson plans so that the needs of learners with dyslexia are catered for (89%), brief lectures (88%), evaluating language teaching materials designed for learners with dyslexia (84%), reading online resource materials (81%), evaluating lesson plans (75%), reading articles (66%), reading book chapters (45%), and other tasks and activities (19%). Teachers found examining case studies and designing lesson plans useful, especially when immediate feedback from mentors/trainers can be provided. Respondents also stressed the value of direct contact and experience with learners with dyslexia (e.g., “I believe there is nothing better than the actual encounter with the students in the classroom to give all parties the feeling and understanding of the difficulty”).

Discussion

The present study examined the impact of demographic variables on EFL teachers' preparedness to include students with dyslexia in the regular class using a two-factor model. Factor one (F1) comprised beliefs about possessed knowledge of dyslexia and self-efficacy in implementing inclusive instructional practices with dyslexic learners (knowledge and skills) and factor 2 (F2) comprised beliefs about general inclusion principles towards dyslexic FL learners (stance towards inclusion). In what follows we will discuss findings relating to each research question.

Our RQ1 examined differences in perceptions regarding preparedness to include learners with dyslexia between Israeli pre-service and in-service EFL teachers. Significantly lower scores on F1 among pre-service teachers could have several explanations. Firstly, whereas the latest revisions by the Council for Higher Education in Israel have called for including courses on teaching English to students with SEN in teacher training programs, the changes have yet to be implemented on a national level. Thus, while some programs may include attention to identifying or including students with any sort of special educational needs, most programs have no courses of this nature, particularly inclusion of students with specific learning difficulties such as dyslexia in EFL classes. It is noteworthy that this lack of sufficient preparation to include students with any form of SEN in teacher training courses is not unique to Israel (Cimermanová, 2017; Loreman et al., 2013; Nel et al., 2023; Pinnock & Nicholls, 2012). Secondly, within the context of the practical component of EFL teacher training, pre-service teachers get little if any exposure and experience with directly teaching students with dyslexia because they are placed in regular education schools. They may be exposed to students with dyslexia in the classes they observe and teach, but the emphasis of their training is on teaching normative students in regular classes, as their certification is for teaching EFL in regular education settings. They may be asked to tutor struggling students, but they rarely get guidance as to how to help them because regular EFL teachers themselves are products of the EFL teacher training system and thus have little if any training in teaching students with dyslexia (Sharma et al., 2013). Thus, mentor teachers are not well prepared to be role models to student teachers in this respect either (Pinnock & Nicholls, 2012). Pre- and in-service EFL teachers do not differ as far as stance towards inclusion is concerned. Their attitudes are very positive.

RQ2 considered the impact of years of teaching on in-service EFL teachers' TEPID. Our results indicated significant differences on F1 between those who had up to five years teaching experience and those who had six or more years of teaching experience. Teachers with more years of teaching experience per-

ceived their knowledge about dyslexia and self-efficacy in implementing inclusive instructional practices with dyslexic EFL learners as greater in comparison to their less experienced colleagues. These findings are contrary to those of earlier studies (Indrarathne, 2019; Kormos & Nijakowska, 2017; Nijakowska, 2014; Nijakowska et al., 2018; Peltier et al., 2022) which found that years of teaching experience were secondary to specific experience with teaching students with dyslexia for improving perceptions of preparedness. The difference with our findings could be due to differences in the composition of teaching positions across countries. EFL teachers in Israel are not assigned to teach one grade or one ability level only but are required to teach multiple grades and ability levels as part of their teaching position. This increases their cumulative exposure to different learner populations. Study participants were not differentiated by the years of teaching as regards their stance towards inclusion (F2).

RQ3 examined the impact of level of education on TEPID scores. In line with earlier findings (Nijakowska et al., 2018), our findings indicated that the higher the completed level of education (degree), the higher the score on F1. However, statistically significant differences were only found between PhD holders and those who had only graduated from secondary school. It seems that teachers' perceptions about their preparedness do not increase significantly with the consecutive degrees they gain. This might mean that relevant training on SEN is missing or insufficient on all these levels. Higher degree (for instance MA vs. BA) does not seem to guarantee increased perceptions on TEPID. It is the type of certification, years and type of experience that seem to matter. PhD holders could possibly have access to training, materials, resources that teachers who only graduated from secondary school did not have. Moreover, secondary school graduates have not yet begun academic degree programs, so their cumulative academic experiences are much lower than those of PhD holders who generally have a long history of learning experiences. Stance towards inclusion (F2) was not impacted by the level of education.

Our RQ4 examined the relationship between type of certification and TEPID scores. Due to the unique EFL certification regulations in Israel, which allow single or multi-tracked certifications for elementary, secondary school, or both, as well as cross-disciplinary certifications, we determined two distinct groups of certification types: EFL only and EFL with special education. In line with the previous studies (Lu et al., 2022; Tümkaya & Miller, 2020), we found that teachers who had special education certification in addition to EFL showed higher levels of perceived knowledge and self-efficacy beliefs (F1) regarding inclusion of students with dyslexia in their EFL classes. This could be the result of the content of their training programs which increases their professional knowledge, and also provides onsite training and practice with teaching students with different SEN as a part of the teacher training program.

Type of certification did not differentiate the respondents in terms of their attitude to inclusion (F2).

RQ5 examined type of teaching experience in relation to TEPID. Our findings highlighted the strong connection between direct experience teaching students with dyslexia and preparedness to include these students in the EFL class, which exists in the extant literature (Kazanopoulos et al., 2022; Kormos & Nijakowska, 2017; Nijakowska et al., 2018, Nijakowska, 2022b, 2022c; Peltier et al. 2022; Wray et al., 2022). Teachers who had direct teaching experience with learners with dyslexia scored higher on F1. This means their perceptions of knowledge and skills to effectively teach learners with dyslexia were more favourable than in the case of teachers who did not have such experiences. With regards to F2, only two types of teaching experience showed an impact on attitude to include students with dyslexia, namely, teaching special classes for students with dyslexia and teaching students with dyslexia in one-to-one sessions. Unique to these two teaching experiences is the specific focus on students with dyslexia exclusively and not as a subset of a regular class. Our findings gain support from previous studies that highlighted the importance of direct contact with students with SEN, one of which being dyslexia, on self-efficacy towards inclusion (Kazanopoulos, et al., 2022; Nijakowska et al., 2018, Nijakowska, 2022b; 2022c; Peltier et al. 2022; Wray et al., 2022).

RQ6 was a cross-country comparison of EFL teacher preparedness to include learners with dyslexia in mainstream classrooms (TEPID). In line with Nijakowska et al. (2018, 2020), teachers from Israel differed significantly on both factors of TEPID from teachers from Poland and Cyprus, but they did not differ from Greek teachers. Both Greek and Israeli teachers evaluated their knowledge and skills (F1) as well as stance towards inclusion (F2) higher than Polish and Cypriot teachers. These findings suggest that Israeli and Greek pre- and in-service EFL teachers held more favourable, positive, and optimistic views of their preparedness to include EFL learners with dyslexia and believed they were more competent and better prepared to include learners with dyslexia than their colleagues from Poland and Cyprus. Differences across countries in perceptions regarding preparedness for inclusion, among other reasons, could be attributed to differences in teacher training programs and educational policies (Tümkaya & Miller, 2020). However, any concrete conclusions would require closer investigation of teacher training requirements and curricula across countries.

RQ7 examined Israeli EFL teachers' prior training and perceived professional development needs regarding teaching students with dyslexia. While more than half of the teachers indicated that they had gained some knowledge about EFL and dyslexia from courses in higher education and teacher training institutions, the majority claimed to be self-educated, and expressed a strong need for additional information and training. These findings support earlier

claims that teachers lack sufficient formal training in inclusion of students with dyslexia in the regular EFL class (Cimermanová, 2017; Lu et al., 2022; Nijakowska, 2014; Russak, 2016), and they align with findings from Nijakowska et al. (2018) who found that EFL teachers from Poland, Cyprus and Greece felt they needed more information on effective language teaching methods for students with dyslexia and expressed interest in further professional development and training. Taken together, these findings corroborate the notion that professional training needs of EFL teachers regarding inclusion of students with SEN are not sufficiently addressed in existing training programs and curricular materials and program requirements could benefit from re-evaluation in this area (Nijakowska et al., 2018).

Teachers expressed willingness to learn about teaching EFL to students with dyslexia through a range of formats including face-to-face, on-line, and self-study. Some also expressed interest in learning in contexts that would bring them in direct contact with students with dyslexia. While any form of teacher training specifically relating to teaching EFL to students with dyslexia would be beneficial, teaching formats that promote direct exposure and on-site practice teaching students with dyslexia have been shown to positively impact teachers' feelings of self-efficacy and teaching (Avramidis & Norwich, 2002; Kazanopoulos et al., 2022; Nijakowska et al., 2018, Nijakowska, 2022b, 2022c; Peltier et al., 2022; Wray et al., 2022).

The content that teachers were most interested in learning more about in order to teach EFL to students with dyslexia related to teaching techniques and tips and assessment practices, reflecting earlier findings which showed that teachers are mostly interested in "applied, hands-on, and practical content that could help them tackle everyday teaching challenges" (Nijakowska et al., 2018, p. 369). Although learning about theoretical content, relating to the nature of and diagnosis of dyslexia had the lowest scores, these topics should still be included in EFL teacher training since improved knowledge about dyslexia, causes, legislation and policy have been shown to impact teaching efficacy (Forlin et al., 2014; Indrarathne, 2019; Kormos & Nijakowska, 2014, 2017; Nijakowska et al., 2018; Nel et al., 2023).

Conclusion

The present study examined the impact of demographic characteristics on teachers' preparedness to include students with dyslexia in the regular class and teachers' professional training needs in a small sample of Israeli EFL teachers. Levels of preparedness were assessed based on teachers' beliefs and

perceptions, which were not supported by observations of teaching practices. This could have led to inflated or deflated assessments of levels of preparedness. A mixed-method approach including teacher interviews, classroom observations or teacher journals in addition to the self-report questionnaire could be used in the future to corroborate findings from self-report instruments, leading to possibly more reliable results.

The present results contribute to sharpening our understanding of this topic across countries while highlighting recurrent themes. All demographic variables, including training, years of classroom teaching experience, level of education, type of certification, type of teaching experience significantly impacted Israeli teachers' beliefs about their level of knowledge and skills, however, only type of experience teaching learners with dyslexia impacted attitudes about including these students. Specifically, those teachers who had taught special education classes and those who had taught students with dyslexia in one-on-one situations had a significantly more positive stance towards including these students. Not only was this finding in line with earlier findings regarding teachers' willingness to include learners with dyslexia (Kazanopoulos et al., 2022; Nijakowska et al., 2018, Nijakowska, 2022b, 2022c; Peltier et al., 2022; Wray et al., 2022), but it also has direct implications for teacher training and professional development programs. Explicitly, incorporating opportunities for direct contact, social encounters, and teaching practices with learners with SEN should be taken into consideration when designing teacher training and professional development courses since research shows that professional development can have a positive impact on teacher knowledge and practice (Zeng, 2023). Onsite mentoring, observation, and guided practice teaching of students with dyslexia could also improve perceived knowledge, self-efficacy beliefs and stance towards inclusion among EFL teachers who do not receive these experiences as component of their teacher training programs. If pre-service and in-service teachers can participate in intensive training courses about dyslexia and foreign language teaching, incorporating exposure and practice with this special needs population, their self-efficacy beliefs and concerns related to implementing inclusive instructional practices with learners with dyslexia, as well as their attitudes to inclusion in foreign language education can change (Kormos & Nijakowska, 2017; Nijakowska, 2022b, 2022c).

In addition, our findings relating to the professional training needs of our participants indicate that present teacher training programs do not provide enough quality content, which leads teachers to search for information and resources on their own. Fortunately, teachers acknowledged the need for more information and expressed high levels of interest in getting practical tools and tips to enhance their teaching and assessing skills, when teaching students with dyslexia. Taken together, this information about desired content and delivery formats can serve as a blueprint for curriculum design for teacher training and

continued professional development towards inclusion of students with not only dyslexia, but all kinds of SEN in the foreign language class. Providing teachers with relevant and up-to-date content can increase their feelings of self-efficacy and in turn their perceived preparedness to include students with dyslexia (Kormos & Nijakowska, 2017; Nijakowska, 2022b, 2022c).

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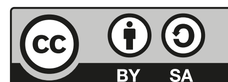

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Can We Modify Teacher Mindsets: Towards Well-being in Education

Abstract

Following the impact of positive psychology on education, the term well-being has recently received more attention. However, there is not much research devoted to practical aspects of developing well-being. The studies that exist focus on mindset of novice (Dweck, 2014b) or pre-service teachers (Irie, Ryan, & Mercer, 2018; Haukås & Mercer, 2021). Therefore, there is still much to be done as far as teacher training and well-being development (TT&WD) is concerned. Inspired by Maslow's study (1943) on self-actualised people, the main aim was to present characteristic features of growth mindset teachers. A mixed method study (Cresswell & Cresswell, 2018, p. 304) was applied to analyse statements about pre-service teacher well-being. By focusing on teachers' beliefs, the distinction was made between fixed and growth mindsets. In the first phase of the study, using Likert-scale, a set of 50 questions was created to capture nuances of positive and negative stance of pre-service teachers. The aim was not to verify the teachers' "subjective well-being" (SWB) (Mazzucchelli & Purcell, 2015), but to focus on the "psychological well-being" (PWB) based on their beliefs and attitudes (Werbińska, 2011). In the second phase, a qualitative analysis of 15 narrative statements served as an indication of the pre-service teacher well-being. The narratives turned out to be the projections of either success or failure of the participants. Finally, a well-being intervention was used which aimed at influencing teachers' mindsets by involving them in three tasks. The data also show subtle differences in respondents' answers concerning the way certain students recognise and show their attitudes to life or the teaching profession, which correspond to fixed and growth mindset (Dweck, 2006). These findings highlight the importance of training pre-service teachers in well-being and offer some implications connected with developing a paradigm framework of teacher well-being.

Keywords: fixed and growth mindset, teacher well-being, narratives, teacher training and development

The Rationale Behind Researching Mindsets

Mindsets remain an under-researched construct in teacher education. Such studies are important and necessary, as they may improve not only teacher well-being but simultaneously be beneficial for other stakeholders, such as learners, their parents, and the whole school milieu. By studying mindsets, we can make informed decisions about certain aptitudes or dispositions teachers may or may not possess in their profession. Most of the studies on mindsets concerned students and their personality features; however, there have been few research projects investigating mindsets of teachers. Among them there is a case study on a novice teacher after the first year of teaching (Dweck, 2014b), a study of pre-service Austrian teachers exploring their beliefs about teaching competences (Irie, Ryan, & Mercer, 2018), and a study on pre-service Norwegian teachers researching their mindsets about teaching competences (Haukås & Mercer, 2021). The research examples point to the merit of growth mindset in teachers who can cope with challenges brought about by their everyday teaching practice and are likely to grow resilience assisting them in fighting burnout. Eventually, they do not drop out from the profession. Unfortunately, not many studies offer solutions to the problem of how to develop growth mindset in teachers to improve their well-being. Little is also known about the specific well-being training teachers can be provided with. Similarly, not much can be found about ways of modifying teacher training and well-being development (TT&WD) for the benefits of teachers and learners. Therefore, the purpose of this investigation is to explore pre-service teacher mindsets that will be related to their state of well-being. Based on an intervention conducted among pre-service teachers in Poland, the study provides new insights into TT&WD and offers some indications on how to enhance growth mindset.

Literature Review

Definitions of Well-being

Well-being is a multifaceted construct which, in very general terms, aspires to make people experience a better life and more effective functioning. Oxford online dictionary describes well-being as "the state of being comfortable, healthy and happy." Well-being is defined in many ways as, for instance, life satisfaction (Diener & Suh, 1998; Seligman, 2002), happiness (Pollard & Lee, 2003), the state of being comfortable, healthy, and happy (Shah & Marks,

2004), or the ability to fulfil goals (Foresight Mental Capital and Well-being Project, 2008). Well-being is conceptualised by the Canadian Index of Well-being (CIW) as "(t)he presence of the highest possible quality of life in its full breadth of expression focused on but not necessarily exclusive to; good living standards, robust health, a sustainable environment, vital communities, an educated populace, balanced time use, high levels of democratic participation, and access to and participation in leisure and culture" (CIW, 2016).[1] It is the foundation not only for a good life, but also effective learning (Mercer et al., 2018, p. 11). It is also claimed that well-being "encompasses a multidimensional matrix of our self and our world: the physical, emotional, psychological, spiritual, philosophical, social, cultural and relational" (Hughes et al., 2019, p. ix). According to Seligman (2012), well-being is a combination of feeling good and having meaningful relationships and a sense of accomplishment in life. To have good life, a person should like themselves and what they are doing (Diener et al., 2009). Well-being was considered by Mercer, Hockly, Stobart, and Gales (2020) as one of the global life skills for the 21st century.

Research on well-being has been conducted in two directions: the hedonic approach and the eudemonic approach. The hedonic approach, preoccupied with happiness and well-being, is synonymous with achieving pleasure and avoiding pain. The eudemonic approach, which is geared at searching for meaning as well as self-realisation, is operationalised by the way a person functions in life (Ryan & Deci, 2001). The dichotomy of hedonic and eudemonic approaches is reflected in another distinction: the subjective and the psychological well-being. *Subjective well-being* is equivalent to the hedonic approach, and it implies emotions and affect as well as cognitive elements enhancing life satisfaction (Diener et al., 1999 Linely et al., 2009). *Psychological well-being*, on the other hand, is represented by the eudemonic approach and it encompasses six dimensions: self-acceptance, personal growth, purpose in life, positive relations with others, autonomy, and environmental mastery.

Subjective well-being (SWB) was defined by Diener, Oishi, and Lucas (2009) as "a person's cognitive and affective evaluations of his or her life as a whole" (p. 187). The ability to experience subjective well-being contributes to achieving mental health (Diener, 1984). Subjective well-being may be interpreted in three different categories. It may be understood as the influence of external factors such as virtue and holiness (Diener, 1984, p. 543). Another factor of subjective well-being refers to life satisfaction, as it enables the person to assess their own life as good. The final factor implies a pleasant emotional experience which may result from the dominant positive affect over the negative one. Therefore, subjective well-being is understood as life satisfaction and positive feelings

[1] Retrieved from: https://uwaterloo.ca/canadian-index-wellbeing/reports/2016-canadian-index-wellbeing-national-report/what-wellbeing

without negative ones. It is interpreted as happiness aiming at experiencing pleasure and avoiding pain (Linley & Joseph, 2004, p. 720). Well-being may not only be the result of pleasing life experiences, such as academic success and positive relationships, but it stimulates these experiences to occur (Lyubomirsky et al., 2005).

Psychological well-being may be understood as "engagement with the existential challenges of life" (Keyes, Shmotkin, & Ryff, 2002, p. 1007) or personal growth and fulfilment (Linley & Joseph, 2004, p. 721). It affects life in which a person feels well and functions effectively (Huppert, 2009, p. 137). Psychological well-being is composed of six elements: self-acceptance (positive evaluation of oneself and one's life), personal growth, purpose in life, positive relations with others, environmental mastery (the capacity effectively manage one's life and environment), and autonomy (Ryff & Keyes, 1995; Ryff & Singer, 2006). The state results in physical health. It may also lead to flexible and creative thinking as well as facilitate social behaviour (Huppert, 2009, p. 149). Psychological well-being of an individual is dependent on early childhood environment, especially maternal care (Huppert, 2009, p. 154). External conditions may also affect well-being; however, actions and attitudes of a person may exert more significant impact on this category of well-being. Interventions which promote positive actions and favourable attitudes may cater for achieving well-being.

Components of Well-being

Well-being has been perceived and operationalized differently depending on various conditions. Holmes (2005) proposed a model of well-being which is composed of four types of well-being: physical, emotional, mental, or intellectual, and spiritual well-being. Well-being is not the state opposite to stress (Holmes, 2005, p. 6) and managing stress will not necessarily facilitate the state of well-being. In order to aim at well-being, a person will need to focus on the positive aspects of everyday life, learn how to appreciate little things, and build on them their experiences. Seligman (2012) claims that well-being is composed of five aspects: positive emotion, engagement, relationships, meaning and purpose as well as accomplishment/competence (the acronym PERMA). The PERMA model emphasizes the social nature of well-being when an individual functions in the context of a community and maintains their relationships with other people. Positive relations are crucial for reaching the state of well-being. Peterson (2006) claims that "(o)ther people matter" (p. 249), whereas Seligman (2011) indicates that "very little that is positive is solitary" (p. 20). According to Rath and Harter (2010), there are five essential elements contributing to well-being. Firstly, career well-being refers to a place where a person works and

spends most of their time. Secondly, social well-being involves relationships and experience of love. Thirdly, financial well-being incorporates how well an individual manages the economic side of life. Fourthly, physical well-being implies the ability to maintain good health and energy. Finally, community well-being signifies the role and participation in the group of people a person lives in. The presented models display a view that the construct of well-being is subjective and difficult to assess due to its diversity. The common elements involve self-acceptance, meaning, engagement, positive emotions, life satisfaction, and relationships.

Factors Influencing Well-being

Well-being seems to be a complex phenomenon. It may be correlated with physical health, income, or social functioning, among other things. World Health Organisation defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948, p. 2). In a later publication (WHO, 2001), WHO specified that positive mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (p. 1). There is also evidence that a person's genes may have an impact on the development of positive well-being and resilience to stress (Huppert, 2009, p. 144). It is claimed that stress has a powerful effect on well-being, whether defined in terms of adverse life events, chronic stressors, or daily pressures (Huppert, 2004, p. 704). Personality is another significant predictor of an individual's emotional reactions, in particular extraversion (positive emotions) and neuroticism (negative emotions) (Huppert, 2009, p. 145). Socioeconomic factors tend to affect mental well-being, in the sense that higher income and socioeconomic status are related to higher levels of well-being (Dolan et al., 2008; Ryff & Singer 1998b). There is a relationship between income and well-being; however, there is some research evidence that although the income has increased, the level of happiness remained at the same level (Helliwell, 2003). There is also a link between education and well-being. Diener et al. (1999) explain that education may justify subjective well-being because educated people have higher income, know how to take care of their health, and enjoy more social contacts. As far as the age is concerned, research findings reveal that the correlation is not straightforward as it depends on which aspect of well-being is taken into account. Although women tend to suffer more frequently from anxiety and depression, in terms of mental well-being, gender has proved not to exert a major difference in the perception of well-being (Donovan & Halpern, 2002; Helliwell, 2003).

Teacher Beliefs and How They Refer to Fixed and Growth Mindsets

A popular definition of a belief states that "it represents an acceptance or conviction that something is true" (Williams et al., 2015, p. 63). Teacher beliefs about teaching derive from their life experiences in the society, prior schooling, professional education, and teaching experience (Gabillon, 2012, p. 3). Beliefs can be divided into three groups: *epistemological beliefs*, *mindsets*, and *attributions* (Williams et al., 2015, p. 68). Epistemological beliefs concern understanding the nature of knowledge and what is meant by the process of learning. Beliefs may be conscious and unconscious. Those conscious ones are also called explicit, and they may be verbalised by an individual. Unconscious beliefs, the ones a person may not be aware of, are also called implicit beliefs or mindsets. However, those hidden beliefs may change, and this is what teachers and teacher trainers can base their instruction on. Mindsets may be fixed and not likely to change, or they may be subjected to modifications, and this is when they are labelled as growth mindsets. These mindsets are more prone to enhance the learning process as they encourage people to make an attempt at discovering new knowledge or skills (Dweck, 2006).

People reveal certain beliefs about teaching and learning which may have an impact on achievement in these processes. As regards beliefs about the teacher and teaching, Williams and Burden (1997, pp. 62–63) stress the importance of developing self-esteem by the teachers in themselves, because only in this way can they enhance self-confidence in their learners. Other qualities, which should also be cherished in the relations between the teacher and the pupils, are dignity and respect. Yet another feature which teachers should stimulate is permissiveness which is understood as acceptance of people in search for their own individuality, expression of opinions and values in life, and, consequently, approval of the learners in their pursuit for identity. Teaching in this approach is interpreted as conveying values and attitudes rather than only transmitting knowledge. Epistemological beliefs concern convictions about what knowledge of language is and how a language is learnt. An individual may be conscious of their beliefs (i.e., explicit beliefs) or a person may be unaware of them (i.e., implicit beliefs). Carol Dweck (1999, 2006) identified two groups of beliefs in learning: entity theory and incremental theory. People who represent entity theory of beliefs are convinced that certain human qualities, such as intelligence, personality, or aptitude, are not changeable. In contrast, the incremental theory entails that these individual features are malleable, and they may be subjected to modification. In more practical terms, the entity theory may also be referred to as a fixed mindset, while the incremental theory is also known as a growth mindset. Mindset is the "extent to which we believe that our competences and their development are within our control and can be improved upon" (Mercer & Gregersen, 2020, p. 40). Growth mindset can enhance

well-being in teachers which, in turn, may also contribute to the well-being of learners. Even though it is partly related to certain personal dispositions, it may also be affected by the teachers who attempt to promote growth mindsets in the learners (Williams, Mercer, & Ryan, 2015). Mindsets may influence learning by facilitating or hindering the development of language.

Mindsets do not fall into two separate categories but they may be revealed on a continuum (Mercer & Ryan, 2009), which indicates that humans may get closer to a fixed mindset or may aspire to growth mindset in different activities. An individual identifying fixed mindset in themselves in a given context, may undertake effort to progress towards the growth mindset in this aspect. To modify mindset, the person must recognize its type and then the reasons for it to be fixed. Dweck (2014a) advocates the value of reflection on one's capabilities and suggests adding the word "yet" to any statements indicating a fixed mindset, such as, *I can't speak English ~~well~~ / yet*. However, the modification of mindset alone may not be sufficient to stimulate improvement, it also requires time, motivation, opportunities, and strategies necessary to enhance change. Gershon (2016) suggests a list of strategies which may stimulate growth mindsets: conveying to the learners the ideas about what language abilities are, accepting mistakes, appreciating effort, providing constructive feedback, introducing language learning strategies, promoting challenge as an opportunity for growth, concentrating on the process of learning, not only on the product.

The research on mindset of learners has been more elaborate than on mindset of teachers. Irie, Ryan, and Mercer (2018) in a study on pre-service teachers' mindsets related to teaching competences, found out the subjects to hold a belief that technical aspects of teaching may be malleable, while interpersonal skills and personality characteristics are rather unchangeable within an individual. Dweck (2014b) claims that if pre-service teachers represent a fixed mindset, they may experience problems in training and in their teaching practice, which may lead towards their lack of confidence in themselves as professionals eventually resulting in quitting the job. Among the pre-service teachers, enhancing growth mindsets seems to be especially significant, as they are still in the process of development as professionals, and they may benefit from the malleability of certain individual characteristics and abilities adequate for teaching. In this way, they may become more resilient to challenges they may encounter in teaching, and they may remain resistant to the risk of burnout on the job (Haukas & Mercer, 2021).

Growth mindset teachers approach learners in a different way than fixed mindset teachers. According to Dweck (2017), growth mindset teachers appraise students who have achieved success through persistence, practice, and learning strategies. Educators revealing growth mindsets convince learners to love learning and to think independently, as well as to work on the basic aspects of this process. They also identify with the view that intellect and talent may

be developed, and they value the process of learning highly. Such teachers establish high standards for all students, not only for the gifted ones and they assist students in achieving them. Growth-minded teachers do not restrain themselves from telling students the truth, but also offer them instruments how to bridge the gap between the ones who do not know how to do things yet and the ones who already can perform the activities. Dweck (2017) summarizes her idea about growth mindset by stating that it is a belief that people can develop their abilities.

Methodology

We made the decision to implement *explanatory sequential mixed method* research design "because of its strength of drawing on both qualitative and quantitative research and minimising the limitations of both approaches" (Creswell & Creswell, 2018, p. 297). In order to explore the construct of well-being of Polish pre-service teachers, we designed a study in order to answer the following quantitative (RQ1), qualitative (RQ2), and hybrid/integrated research questions (RQ3) (Creswell & Creswell, 2018, p. 304).

RQ1: What are the pre-service teachers' beliefs in relation to well-being?
RQ2: How do the narratives based on awareness-raising questions help to explain fixed and growth mindset of pre-service teachers?
RQ3: How may well-being intervention influence mindset?

In the quantitative analysis, the responses to the questionnaire were to provide an insight into the participants' beliefs about well-being. In the context of the study, a *belief* will be understood as "any simple proposition, conscious or unconscious, inferred from what a person says or does" (Rokeach, 1971, p. 61). In the qualitative data collected from written narratives, *fixed and growth mindset* was observed, which will be understood as a prevailing or predominant tendency to act in a certain way under specific circumstances. The tendency may refer to an individual's state of mind and might be expressed as the most characteristic inclination of a person to be either happy, sad, or anxious. It can also be traced back to its usual way of feeling and behaving, for example, complaining. Finally, a *well-being programme* was established as a result of a *pre-intervention* (based on some awareness *raising questions* which aimed to encourage pre-service teachers to become aware of change in the quality of their life), *intervention* (based on three tasks in practising acts of kindness, expressing gratitude, or taking up a new sport) and *post-intervention* (based on reflections after performing the three tasks).

Procedure

The design was mixed-method research (Efron & Ravid, 2013, p. 45). The study had two stages. In the first stage, we devised a set of questions in a form of a questionnaire using Google forms (URL: https://forms.gle/movv2ebasa-86bvpqa). The questionnaire consisted of 50 statements, which usually took the pre-service teachers five to ten minutes to complete. Our true inspiration for the research came from Abraham Maslow's studies on self-actualisation; however, we also used the Teacher Aptitude Test[2] to create the instrument. To understand personal experiences, we also focused on some dominant and recurring themes that we found in the literature on well-being. As it was our decision to observe clear expressions of teachers' beliefs, we used Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree) without the middle neutral value. The rationale behind asking pre-service teachers to make stronger dichotomous choices (1–4) prevented us from collecting less interpretable data. However, we decided not to change the response scales (into, for example, very often, often, seldom, never) for the sake of ease of administrating. We assumed that statements placed to the left of the poll will represent fixed mindset, while those on the right growth mindset. In some questions we changed the meaning of a sentence. For example, we used the negative form *I don't complain*, as we wanted the participants to think carefully before responding to the statement. The aim was to reveal certain dispositions of the teachers, both positive and negative. It is possible; however, that some of the teachers may have misunderstood the meaning intended in some statements if they answered the questions too quickly or without comprehension.

The next step of the first stage of the research involved dividing the questionnaire statements into triads within two fields of study corresponding to spheres and conditions (Table 1). By collectively agreeing on the meaning of the nature of the dispositions, we distinguished the following fields of study. The "spheres" field of study stood for professional, social, and environmental, as well as emotional triad. Whereas the "conditions" one consisted of performance, competency, and stance. The framework was not supposed to sort people into types (as in the case of the Myers-Briggs theory of psychological type), but to measure teachers' general beliefs using the Likert-scale statements. Since the respondents dealt with self-reportable indicators of habits, perceptions, attitudes, reactions, and preferences, we assumed that the raw scores were sufficient to bring valuable information on individual well-being. It was also possible to address the statements related to the indicators which would be for the sake of identifying teacher well-being.

[2] The Teacher Aptitude Test (TAT) consists of 213 questions and usually takes 75 minutes to be filled in. (URL: https://www.queendom.com/tests/access_page/index.htm?idRegTest=4175).

Table 1

A Division of Questions into Spheres and Conditions Triads (Link to the questionnaire: https://docs.google.com/forms/d/e/1FAIpQLSdezndvMiBg-L2yrYxvwQuqxCX6w-wQQPO4ojahLEJKXkWSGEA/viewform?usp=sf_link)

WELL-BEING						
Field of study	SPHERES			CONDITIONS that are necessary to be met		
Triads	Professional sphere (Job satisfaction/ teaching practice)	Social & environmental sphere	Emotional sphere	Performance	Competency + commitment)	Stance (attitudes, points of view)
Question number	1, 2, 3, 6, 11, 12, 13, 15, 21, 29	14, 16, 20, 25, 36, 37, 39, 45	22, 24, 28, 30, 40, 41, 48	4, 7, 8, 9, 18, 23, 34, 38, 42, 43, 47	5, 17, 33, 35, 46, 49, 50	10, 19, 26, 27, 31, 32, 44

In stage two of the study, we established a well-being intervention. Psychological interventions designed for enhancing well-being are described by Sin and Lyubomirsky (2009, p. 467) as techniques "aimed at cultivating positive feelings, positive behaviours or positive cognitions." Duckworth et al. (2005) point to around 100 activities which may enhance well-being. Some of them involve noting down small things every day for which a person is grateful, having a regular physical exercise and reflecting on feelings about it or avoiding complaining because it provokes negative thinking. However, there are other ways of achieving well-being.

Our well-being programme was divided into three parts. The aim of the *pre-intervention* was to point to the potential of the treatment actions undertaken by the participants. Therefore, after the quantitative data were collected, we devised a set of 12 awareness-raising narrative questions (see Appendix 1). The questions arose from focusing on the spheres and conditions, which may have an influence on teacher trainees' mindset. In each of the sections, we added one task, asking the participants to perform an activity over a period of one month. We addressed the *well-being intervention* by asking the respondents to choose one of the three tasks from one of the three sections of the narrative questions (performance, competency, affect). The tasks involved listing ten items every day, such as practising gratitude, taking up a new sport, or doing random acts of kindness. The participants of the study were to continue performing the selected task for the period of one month, so that a good habit is formed and internalised. The *post-intervention* aimed at asking the pre-service teachers to record reflections on the well-being training/intervention.

Research Instruments

We began the study with the *quantitative phase*, in which we used a questionnaire which consisted of 50 Likert scale statements. The questionnaire aimed to display distinct set of factors having an influence on and affecting well-being. Then, we addressed the *qualitative phase* to explore teacher well-being. In the qualitative phase, we used narrative inquiry which aimed to show growth or fixed mindset dispositions of the teachers. Instead of *stimulated recall*, in which a researcher invites "teachers to think aloud about relevant classroom processes" (Fives & Gill, 2015, p. 21), we used **written narratives** to gather the data in this phase. We do believe that writing ideas down may slow down thinking and make the process more conscious. We are aware of the fact that writing is less spontaneous than speech, but we believe that by writing the pre-service teachers could look retrospectively at what they and their peers believe in. The written narratives focused on one central phenomenon—the growth mindset specifically. The narratives were also used to help teachers analyse their own constructs, known as schemas, which are understood as a way of perceiving the world. In other words, teachers may experience their reality better by creating constructs about the profession. The constructs can be modified or changed any time, depending on the dynamics of the context, willingness, or motivational factors. Finally, we introduced the **well-being intervention**. The biggest challenge that we faced while working on the development of the intervention, was to come with a reliable and valid tool which would measure any change of fixed mindsets. As we were uncertain how to make the changes happen; therefore, we asked the participants to do three tasks (see Appendix A) over a period of one month. The tasks, based on the PERMA model (Seligman, 2012), are presented below:

Task 1. What are you grateful for? Task: List 10 items every day for a period of one month. Write down your observations.
Task 2. How often do you do physical exercises? Task: Take up a new sport and practice it for a period of one month. Write down your workout results and observations.
Task 3. What are the "small things" that matter? Task: List the "small things" (or "random acts of kindness") you do every day for someone (your parents, siblings, friends, unknown people) over a period of one month.

In our research, we wanted to check if there is any positive influence of practising gratitude, performing acts of kindness, and exercising sport on teacher well-being. We allowed pre-service teachers to choose from the set of the tasks in order to observe the nature of the dispositions exhibited in their narratives. In the study, we did not aim at changing the participants' dispositions in any

way, but rather making the participants aware and conscious of certain fallacies they may have possessed. Our main field of study was to gauge which conditions are necessary for the growth mindset to flourish or to enhance a change of the fixed mindset. Ultimately, in order to improve their well-being, our idea was to come up with a paradigm framework of main characteristic dispositions that could be changed, or at least modified to a certain degree, by the teacher trainees themselves.

Participants

The data analysed come from the research conducted in the academic year 2019/2020 on pre-service Polish teachers. The project was carried out among pre-service teachers at the Witelon State University of Applied Sciences (WSUAS) in Legnica (B.A. students $N = 34$) and at the University of the National Education Commission (UKEN) in Krakow (B.A. students $N = 24$, M.A. students $N = 10$). Initially only B.A. students were to be included in the research; however, the decision was made to observe the responses given by M.A. students as well. The students had different degree of teaching experience. Some reported only 45 hours of observing the classes and 15 hours of teaching done as their obligatory apprenticeship at the universities. Some students gathered the teaching experience at one-to-one tutorials or working in private language schools.

We took into account some ethical considerations (Plummer, 2001, p. 228), which were made clear to participants in the instructions (see Appendix 1). The participants were presented with a consent form to complete before any data were collected. They were allowed to withdraw from the study at any phase of the research.

Results

This section reports on the outcomes of the data collection stages and the findings are presented in relation to the research questions.

RQ 1: The Pre-Service Teachers' Beliefs Concerning Well-being

In response to the first research question, our results clearly revealed pre-service teachers' beliefs, and served us to notice various aspects of their lives.

The questionnaire, which was based on Likert scale, measured such beliefs as motivation, preferences, effort, resilience, perseverance, conflict resolutions, and many more. However, due to some space limitations, we restricted the presentation of the data to one sphere only, namely *performance*. The other two spheres of *competency* and *stance*, which apply to the conditions that are necessary to be met by teachers, will be discussed in a separate article. As declared by the pre-service teachers, their beliefs related to well-being vary. Some exemplary statements are provided in Table 2.

Table 2

Exemplary Pre-service Teacher Beliefs in the Field of Performance (in Percentage)

Number of an item	Strongly disagree / Never %	Disagree / Occasionally %	Agree / Often %	Strongly agree / Always %
4. I have time for relaxation	22.7	36.4	29.1	11.8
7. I do yoga	**79.1**	10	7.3	3.6
8. I meditate	**76.4**	10	10	3.6
9. I listen to relaxing music	30	13.6	17.3	39.1
18. I am very sensitive to fake and dishonest behaviour	3.6	16.4	29.1	50.9
23. I do not regret things	**32.7**	**39.1**	18.2	10
34. I appreciate „trivial things" like sunset or a flower	6.4	8.2	24.5	**60.9**
38. I have very few but close and intimate friends	10.9	16.4	23.6	49.1
42. I can forgive others and myself	10	24.5	40.9	24.5
43. I practice gratitude	7.3	4.5	31.8	**56.4**
47. I do not complain	**33.6**	**42.7**	16.4	7.3

The raw data collected in the questionnaire were problematic to unravel. In their responses, pre-service teachers claim not to have too much time for relaxation. However, those respondents who admit they have leisure time, were not able to specify if they spend it in front of a TV-set or by being physically active in the nature. This limitation was due to the questionnaire format. Most of the participants have never taken up yoga (79.1%) or meditation (76.4%), which might have been a gauge of their well-being. It was unclear to us whether the teachers truly "practise gratitude" or simply say "Thank you" as an indi-

cation of good manners (Statement no. 43). Similarly, we are not certain how well and to what extent, they appreciate small things that matter in their lives (Statement no. 34). We also needed to know what the pre-service teachers usually complain about (Statement no. 47) and how they go about it in everyday life. It was interesting to observe their past experiences, as we believe they may have formed their mindset (Statement no. 18). The questionnaire, which provided us with extensive data, lacked precise information. We needed to collect information that could generate vast amount of rich data on the nature of students' beliefs and dispositions in relation to well-being. We were more interested in knowing "how" the teachers actually perform, rather than the "what" standards they identify with. We realised that it is unclear what the pre-service teachers meant by choosing some of the statements. We needed to collect more observable and interpretable types of information. For that reason, apart from collecting data from the questionnaire, we asked the teacher-to-be students to write narratives, in which they presented their responses to the clues in the options provided.

RQ2: Fixed and Growth Mindsets of Pre-Service Teachers Found in the Narratives

Regarding the second research question, a set of narrative questions, which were based on awareness raising questions (Appendix 1), provided us with noteworthy findings. The purpose of implementing this instrument was to repeat the process of inquiry introduced in the questionnaire in order to verify the hypothesis of fixed and growth mindset. The aim was not to contrast the data coming from the two databases but to look for some tendencies in the answers provided by the participants. However, we found it difficult to demonstrate meaning conveyed by the pre-service teachers and interpret the data accurately, as narrative data are often abundant in quantity, repetitive, or confusing. Dörnyei and Csizér (2012) claim that a "rule of thumb is that we should present as much of the information as possible in *tables* rather than in the running text" (p. 86). The way of demonstrating the results helped us to explain the qualitative data, but above all, they expanded the understanding of the reasons behind the fixed and growth mindset of the students. The narratives, classified as statements of either success or failure, illustrated how growth or fixed mindset influence dispositions of the respondents. We also observed a continuum of mindsets in which traces of both fixed and growth orientations were found.

Table 3

The Dimensions of Growth and Fixed Mindset as Indicators of Success and Failure with Corresponding Sample Items Reported (in Italics, Spelling original). Based on Dörnyei (2005, p. 180)

Growth mindset teacher's dispositions (Statements of success)	Fixed mindset teacher's dispositions (Statements of failure)
TIME MANAGEMENT i.e., how well one manages one's time	
In my opinion, I am pretty good at managing my time. Whenever I have many things to do, I try to put them down in the form of a list and see which are the most important. Then, I plan my day by assigning a certain amount of time to each thing on my 'to-do list,' starting with the most important ones.	*I can't organise my time well enough to do everything I'm supposed to do a particular day. It may have something to do with my fondness to napping especially during winter.*
Continuum of mindset: Time management *I'm not very good at time management, although **I've gotten better over the years.** Both procrastination and forgetfulness have often caused me quite a lot of trouble.*	
COMPLAINING i.e., how well one restrains himself/herself from expressing feelings of dissatisfaction, grief, or resentment	
No example found	*To be honest, I complain about pretty much everything :) It may be as trivial as bad weather or as serious as political issues. Someone that I complain with is **my sister** because she is basically the same person as me and things that irritate me also irritate her and I know she won't judge me. In other cases she is the one that pulls me together and **tells me to stop complaining and it makes me realise that I am being petty.*** *I always complain about trivial things, but mostly about the condition of my health. I often say that something hurts me for example back or throat. I say these things to my friends. I know that they are done with my complaining **but I just can't change it**. I'm aware about the fact that it is highly annoying, yet I still do it. It is said that **Polish people are likely to complain and I have to agree with that statement :)*** ***I am guilty of complaining** quite frequently when it comes to the topic of my university and studies, or hardships that result from some incompetence stemming either from me or others.*
Continuum of mindset: Complaining *I'm really learning to complain less, because it's very unprofitable.*	

Growth mindset teacher's dispositions (Statements of success)	Fixed mindset teacher's dispositions (Statements of failure)
HELP-SEEKING i.e., how well one uses the resources of other people to make important decisions	
I would like to say I make decisions considering what my family expects of me, or what my friends would like me to do, but that is not the truth. I do respect everyone's opinion and love to ask my loved ones for advice, but when it comes to lifechanging events, I believe I am the only one who has the right to decide. Things that concern my future or my relationships, I believe should only be determined by me, and staying true to myself without corruption of what others expect of me, is essential. When my mind is fixed on something, there is nothing that could prevent me from pursuing, whatever path I decide to take. Sometimes it results in irreversible mistakes and I am aware of the fact, I was wrong, but making mistakes is a part of the process that is life.	*I always get inspired by other people's opinion. I want to know what somebody thinks about a particular idea/decision. I believe that I can learn from everybody and that everyone I meet in my life can enrich me in some way. I think it is important to ask other people for their opinion as sometimes it is necessary to look at something from a slightly different point of view. Only in this way can we spot things that we haven't paid any attention to before. However, at the same time we should remain assertive and we cannot let others decide about our own life. The way we live should make us happy and not necessarily other people.*
Continuum of mindset: Help seeking *At this moment, I feel that I am truly responsible for my life in all of its domains. Beginning from the choice of my daily tasks, continuing with university and ending with work, I am liable to the consequences of most of my decisions. However, I like to have a second opinion on my choices; therefore I often consult them with somebody close to me, as my mother or boyfriend. In most cases, advice just helps me to approve my initial decision; but sometimes opinion of my beloved ones changes my perception, allowing me to make a right choice.*	
PRACTICING GRATITUDE i.e., feeling thankful and being willing to show appreciation to other people; being consciously grateful for trivial things like food, shelter, not as a habit of saying "Thank you" but rather as a recognition of the positive aspects of one's life	
I practiced every day. I decided to continue doing such gratitude task, perhaps only with less sentences. ***I'm not only glad I could be a part of this self-based research, but I'm GRATEFUL!***	*First of all, I chose this particular task because this is something I've been wanting to do for quite some time. To begin with, I must confess that I did not manage to make a list of 10 items for every single day. I am simply not a person who is keen on noting down personal thoughts, dreams and feelings.*
Continuum of mindset: Practicing gratitude *I chose this task (*practicing gratitude) because I am liable to complaining a lot and I thought that this task would help me to appreciate my life more and be thankful for even the smallest, insignificant things. Sometimes, it's easier to focus on what we don't have, rather than what we do have. It's important to take time out and remember all of the things to be thankful for that many of us take for granted.*	

Growth mindset teacher's dispositions (Statements of success)	Fixed mindset teacher's dispositions (Statements of failure)
TOLERANCE i.e., the ability to accept something that annoys us, is unpleasant or willingness to accept a behaviour different from our own, being tolerant towards oneself and others	
Mistakes are a natural component of our lives. Experiencing a failure or even a small lapse is usually associated with shame and embarrassment; such approach is not correct. Due to committing mistakes we have an opportunity to learn plenty things about ourselves and the outer world; by repetition that is needed in order to improve or fix a mistake, we gain a chance to better resolve problems; thanks to them, we acquire modesty and understanding. These points should remind us that mistakes are supposed to teach us, not embarrass or humiliate us. I perceive them as a sight of impending improvement as well as prompts to becoming better and better. When a teacher or my peers make mistakes, I regard it as something necessary for their individual development. Laugh or rudeness are not welcome. I rather tend to help them correct lapses or assure that such occurrences are not shameful but serve another purpose	*There are many kinds of mistakes. I'm not at all troubled or annoyed when my peers make tiny mistakes, and hopefully they don't mind me doing some either. We are still developing our skills. However, I absolutely hate it when teachers that teach English make grammatical mistakes or pronounce words in an abhorrent way, especially at the University. If you don't speak better than me or use vocabulary more advanced than my own, and are supposed to teach me practical skills, what can I learn from you? And that extends also to accent, preparation, exercises, etc., i.e. everything that makes a lesson a lesson.*
Continuum of mindset: Tolerance *When I notice my peers' or teachers' mistake it makes them more "human like." When it comes to peers' errors I usually try to politely ask if they mean "this" or maybe something else. Obviously, I feel less hesitant when correcting my friends than correcting my teachers. I often make mistakes for this reason, when someone says something incorrectly or do any type of error it ensures me that I am not the only one struggling with certain matters. However, I try not to justify my mistakes by assuming that I am allowed to make mistakes since other people make them too. Rather, I try not to commit the same error*	
DEALING WITH UNPLEASANT SITUATIONS i.e., the ability to forgive, let go, accept things as they are, confront the challenges	
The only unpleasant situations I can think that I've witnessed are fights. I've seen a fair share of them throughout the years. The one I remember the most happened during my PE lesson back in primary school. Two of my classmates got into it during a football match and we had to separate them rather quickly, but it took us over 20 minutes to get them calm. I, along with my other classmates, immediately rushed towards them when we saw what was about to go down and thankfully, we managed to separate them before any real damage was done. We talked to both of them a lot over the next hour and eventually they shook hands and they never fought themselves again.	*The last unpleasant thing that happened to me is when I heard that my friend cried over what a teacher told them. At first, I was completely shocked that a fully grown woman can be brought to tears and I wanted to know as soon as possible what happened. I met with that friend as soon as possible and my first reaction was funny. I was furious at the unprofessional behaviour of that teacher towards their student. I was more angry than my friend. I soon calmed down but didn't ignore the issue. I advised my friend to tell someone or at least keep a record of the situation to have something to refer to if such a situation repeats itself. It hasn't been solved yet but I resolved myself to aid my friend in any way as I would hate to have her break down mentally.*

Growth mindset teacher's dispositions (Statements of success)	Fixed mindset teacher's dispositions (Statements of failure)
Continuum of mindset: Dealing with unpleasant situations	
One unpleasant situation that I remember was during the class when due to some weather conditions the group seemed not to be focused and the teacher got really upset. He was very angry and started to scream at us and threaten with extremely difficult exam. Even though there was not a single person pointed out for this behaviour but a whole group, I felt really uncomfortable, especially because I was sitting in the first row when the rage outburst took place. Obviously, I just looked at my notes to not provoke the teacher and waited for him to finish. I believe that it was the only action I could take in such student—teacher situation. To solve the problem I moved to a different sit for the next class.	

Table 3 shows exemplary fixed or growth mindsets of pre-service teachers, which are illustrated by means of verbally stated dispositions. The participants interpreted the same narrative question in different ways, which testified of their beliefs related to the suggested prompts. Students could have written about anything; however, their choice of the topic was in fact a reflection of their continuum of mindset. Some participants were hesitant or unaware of what makes the potential of well-being so effective to be discovered. The findings also demonstrate that the responses may indicate some inconsistencies within individuals and their dispositions oscillating on a continuum between a fixed and growth mindset. The qualitative data provided us with a more in-depth insight into the state of students' mindsets. Above all, the narratives expanded our understanding of the reasons behind the fixed and growth mindset of the students and helped us explain the areas of concern for learners' well-being.

RQ3: The Influence of Well-being Intervention on Students

In response to the third research question, our results showed various dispositions exhibited by the pre-service teachers. They are presented in Table 4. As part of the well-being intervention, we measured the influence of practising gratitude (Task 1.1), exercising a new sport (Task 1.2), or performing acts of kindness (Task 1.3) on teacher well-being. In each of the tasks, understood as "the one-month challenge" conducted over a period of thirty days, the pre-service teachers were to keep a daily record of their progress. In the post-intervention we conducted a qualitative analysis of students' observations on the experience.

Table 4

The Number of Respondents Optionally Choosing Particular Narrative Questions

Question number	Witelon State University of Applied Sciences (WSUAS)		University of the National Education Commission (UKEN)	
	BA		BA	MA
Triad	PERFORMANCE			
1	Gratitude	2	**13**	—
2		6	8	4
3		5	3	1
4		4	9	3
5		6	10	4
Triad	COMPETENCY			
1	Sport	3	7	—
2		6	11	9
3		6	12	7
4		1	8	3
5		2	6	1
Triad	STANCE			
1	Kindness	2	2	—
2		—	4	—
3		2	10	4
4		—	4	1
5		2	10	4

Most of the choices of the UKEN students (N = 13) fell for task no. 1.1 which entailed practicing gratitude. Task no. 1.2 (doing a sport activity) was chosen mainly by the male participants (WSUAS, N = 2; UKEN N = 7). However, a few students admitted that they "reactivated" gym training, instead of trying a new sport. Only N = 2 students from WSUAS and N = 2 from UKEN decided to record the random acts of kindness or notice the small things that matter (task 1.3). It was interesting to observe which of the items the respondents considered important to be mentioned in their narratives. The choice for the tasks the teacher-to-be-students made, as simple as they may

seem, served us as the source of evidence for their change of mindsets that might be related to their overall state of well-being.

As stated before, the idea of the intervention was not to introduce the pre-service teachers into a system of norms and beliefs connected with well-being but help them find the opportunities to create their own positive dispositions by undertaking one of the tasks. As a result, in the post-intervention, some of the participants, even though not requested, wanted to share their lists of things they are grateful for (some examples are presented below).

> Breathing and waking up every day
> Being healthy
> Having money for buying food
> I am grateful that I am in good health
> I am grateful that I am not very poor
> Having a wonderful sister
> Having new and wonderful friends
> I am grateful to every person that is out there for me, my friends and relatives
> I am grateful to my girlfriend who I love and who loves me despite any problems
> I am grateful to my family who helps each other
> The things that I have lived in the past
> Being able to live new things
> Living too many things with my granddad before he died

The pre-service teachers reported the gradual process of developing new and surprising items they wanted to express their gratitude for. They listed single words or whole phrases, which usually started with basic needs realised (like physiological needs of food and shelter), then gradually developed into safety and belonging needs (friends, family, love). They rarely listed the elements from self-actualisation level of Maslow hierarchy of needs (1954).

In the post-intervention phase, the successful students mentioned some of their observations that happened on the way of practicing gratitude. The students explicitly declared that they noticed a gradual change in their perception of reality, from negative to a more positive one. They stated that they gained a lot of new experiences from this task, namely feeling happier and appreciating trivial things in their lives. It helped us, the researchers, recognise the difference between fixed and growth mindset. Growth mindset pre-service teachers made more effort and persisted in keeping the records of their gratitude practice.

> At first the task seemed difficult. It was really hard to name those 10 things a day, but after a few days it actually became easier and I kind of started

> seeing and witnessing gratefulness for various different, smaller things than usually. This whole exercise opened my mind for literally everything that is going around me, and I started enjoying simple things more than ever.

Contrary, those students who failed to undertake the task, regretted not having done so in light of feedback from the colleagues who reported on the beneficial impact of the intervention on their lives. Their responses indicated that the basic competences, such as persistence, time management, and effort failed. The fixed mindset students usually found excuses for not undertaking the task. They admitted that they had not seen the value in doing such tasks, or that they gave up the task when they realised that they kept noticing the same small things every day, or they felt intimidated by performing acts of kindness. However, they later expressed the willingness to practise gratitude in the future as they noticed positive changes in their peers. Perhaps because by writing ideas down, they may have noticed the inconsistencies of their thoughts in retrospection.

> I believe honesty in such tasks is crucial, therefore, I have to admit my failure completing the assigned chart. Being a strong believer in the power of motivational speeches, and little changes in life that hold great significance, I am surprised how difficult it was for me to write down things that made me happy. Maybe because November turned out to be one of the most stressful and depressing months I can remember. […] I might try such a task again in the future, when the time is right.

Discussion

We agree with the previous researchers that the complexity of mindsets makes it difficult to operationalize the concept of well-being. Thus, the study provided us with an illustration of different thought patterns among the group of pre-service teachers. Based on the findings, we were not only able to distinguish growth from fixed mindset occurrences, but above all, to observe a process of transformation which happened because of the well-being training. In the first stage of the research study, in order to investigate beliefs in relation to well-being, we used the questionnaire. In the second stage, to explore mindsets, we utilised a set of narrative questions. To induce change and modify teacher training and well-being development (TT&WD), we applied the intervention that focused on three growth mindset-oriented tasks. We then

interpreted the succeeding results. They displayed distinct set of viewpoints and beliefs that teachers identify with.

The results of the questionnaire helped us notice that there were certain factors that could have affected mindset and well-being of the teachers, which we perceive as culture-based default assumptions. Some of the pre-service teachers exhibited negative beliefs (fixed mindset), concerning various issues. They were complaining, making excuses, not taking responsibility for their actions, acting as a victim, or even blaming others. We perceived them as negative dispositions. Psychologists (Wojciszke & Baryła, 2002; Szymków, Wojciszke, & Baryła, 2003) point to the Polish culture of complaining which may result from the negative norm of the social world. According to this view, the Poles create a specific culture of complaining, in which it is allowed, or what is more, it is even appropriate to speak, think, and feel in negative terms. The researchers agree that complaining in certain situations may result in deteriorating the mood, as well as it leads to the access to negative categories, but it may also help to build and maintain close interpersonal relations. This interpretation may explain why, in the present study, if respondents chose to reflect on the point concerning complaining, they confirmed that they often experience it and that there are many aspects of life they grumble about.

One unique feature of our findings is that the lack of willingness to perform a task and not perceiving this activity as useful or beneficial, may testify about another culturally distinctive characteristics of some of the Polish pre-service teachers. It remains unclear why M.A. students were unwilling to undertake the task (Table 3) neither in performance, competency, nor stance. It may well be that they have never encountered this type of training in their teacher education programmes and they do not believe that it can alter anything in their lives. Or perhaps, the research they have to conduct while writing their M.A. theses makes it difficult for them to find time for any extra activities. Their anxiety about entering the teaching profession on completing the M.A. programme may also affect their apprehension about starting any new training. We, therefore, agree with Dweck (2006) that as educators, we should focus on and praise *persistence*, *effort*, *time spent* in order to create a culture of self-motivated teachers. It may help them pursue various aims and achieve their goals. We shall also encourage teachers to strive to develop their well-being by undertaking the activities that are generally perceived as positive for human body, emotional balance, and mental development. It is because we noticed a change among the participants in their approach to practicing gratitude or noticing small things that matter. By being open to change, the participants were more likely to pursue the way to achieving the state of well-being.

This study shows that some participants were more determined to change their mindset. It is, therefore, likely that connections exist between their responses, which indicate that they understood the value of change, and their

inclination to struggle to implement it in their lives. There were also some common affective behaviours displayed by the individuals which included interests, appreciations, attitudes, values, and adjustments. They were visible in such dispositions as tolerance, help-seeking, lack of complaining, good time management, practicing gratitude, dealing with unpleasant situations. It turned out that the pre-service teachers felt more assured of their well-being. They usually represented the growth mindset. What is more, the responses to the first tasks in each of the three sets of the narratives suggest that fixed mindsets are modifiable to a certain degree and that malleability of the fixed mindset cannot but foster the growth towards well-being.

Previous studies have confirmed the positive influence of well-being development on individuals; however, well-being is rarely included in teacher training programmes. Practicing gratitude may affect psychological well-being in a favourable way (Carver et al., 2003; Seligman et al., 2005). Some people reveal a trait of gratitude, which can be considered a predisposition to experience the feeling of thankful appreciation for favours received in everyday life (Gularnik, 1971, p. 327; Watkins 2003, p. 432). Not only gratitude but also kindness has a positive influence on psychological well-being (Parks & Schueller, 2014). People who are capable of being grateful and kind, turn out to be more optimistic and happier (Watkins et al., 2003), can manage effectively adverse events (Emmons & McCullough, 2003) and are able to establish as well as maintain positive relations with other people (Algoe, 2012). Gratitude may also foster physical health, as it strengthens cardiovascular and immune systems, secures relaxing of the body during sleep, and promotes physical activity (Post, 2005).

The results of the study should be interpreted with caution as Irie, Ryan, and Mercer (2018) found out that pre-service teachers believed in some technical aspects of teaching being learnable, while interpersonal or personality features were not considered malleable. This conviction may have resulted from the fact of what is included in a teacher training curriculum, the supposition being that if some aspects are not included in the programme, they cannot be taught. Another research (Haukås & Mercer, 2021) confirmed the finding that pedagogical and linguistic competences were perceived by pre-service teachers as more prone to be subjected to change while personality and social skills were interpreted as more permanent. However, it was also suggested that teacher trainees encouraged to promote a growth mindset in social skills and personality, were more resilient and enhanced their professional well-being. Being proactive in developing social and emotional mindsets cannot but assist empowering of professional well-being.

New Paradigm Framework for Teacher Well-being

Abraham H. Maslow once said that "we spend a great amount of time studying criminality. Why not also study law-abidingness, identification with society, philanthropy, social conscience. *Gemeinschaftsgefühl*?" (Maslow, 1954, p. 287). Maslow kept a *Good Human Being* journal in which he noted down his observations of good human beings. The information he gathered, was used for developing the highest level of hierarchy of needs, namely self-actualisation (Szymańska, 1997). Even though Maslow was criticised for lack of empirical data, his contribution in the form of the pyramid of needs in the field of psychology is known to all. Just as we study teacher burnout, we may as well look at the core features of well-being, which according to Mercer et al. (2020) is one of the global or 21st century skills nowadays. For those reasons, the study aimed at specifying the overall sense of well-being and formulating factors which may contribute or have an impact on the well-being of teachers. These data indicate that similarly to the studies of the good language learner, which involved identification of the main characteristics associated with gaining success in language learning, we may indicate the dispositions of growth mindset language teachers. Just like the Teacher Aptitude Test can measure teachers' predispositions for teaching, similarly fixed mindset teachers' dispositions can be noticed in the language they speak and hopefully modified, or at least verified, by what they report back.

Prior studies noted that teachers are under the influence of their own beliefs, which are also related to their values, the views about the world, and the perception of the context in which they live and work (Williams & Burden, 1997). It is true to say that we perceive our reality by creating various constructs, but human beliefs very often lack consistency, as an individual may believe in contrasting convictions. Being unaware of the beliefs or fallacies of mind is one thing, becoming mindful and conscious of one's performance is another. Robins and Pals (2002) claim that mindset is a combination of beliefs and self-regulatory processes. In the study, we have noticed that mindsets can be enhanced by means of asking awareness-raising questions, which indicates that despite being constant, beliefs of individuals can be instructed and modified not only by experimental treatment (Dweck & Molden, 2015). Secondly, just like some previous studies have already observed that mindset can be changed (Irie, Ryan, & Mercer, 2018; Haukås & Mercer, 2021), our research confirms the positive influence of practising gratitude, performing acts of kindness, and exercising sport on teacher well-being. Consequently, based on the findings from the study, we devised a new *paradigm framework* with some features that represent a growth mindset teacher. The outstanding features are based on the written utterances provided by the participants. We juxtaposed the answers given to the narrative questions and pried out the growth-oriented responses

provided by the participants. As a result, we came with the following framework which may serve as a paradigm shift of a growth mindset teacher.

Table 5
A Paradigm Framework of a Growth Mindset Teacher

Growth mindset teacher
practises gratitude
can self-regulate
doesn't regret things
doesn't hold grudge
doesn't complain
does a physical activity regularly
can manage time well
sets goal
resolves disputes successfully
is interested in other people and their interests
does random act of kindness
tolerates mistakes of other people
has one's own values
is self-assured
can make one's own decisions

Table 5 presents a paradigm framework of a growth mindset teacher, which consists of a set of beliefs. The paradigm does not impose getting rid of cognitive approaches to teacher development but urges teacher trainers and trainees to study the affective and psychomotor domains more closely. It also does not cover all teachers' dispositions, nor it is to be understood as the legitimate set of teachers' standards. Though, it may act as a set of dispositions which are required, or at least shall be taken into consideration, in teacher enrolment, training, and development. The framework may be claimed to consist of the main characteristic features of self-realizing teachers, as they present growth mindset dispositions. What is more, we designed the theoretical framework mainly to illustrate the main attributes of growth-mindset teachers.

All in all, we are inclined to believe that well-being training shall be preceded by training in mindsets. Firstly, the participants need to learn about the difference between fixed and growth mindset. It can be achieved by read-

ing more specialised literature. By asking awareness-raising questions (ARQ), they can gauge for themselves which of the fixed mindsets they would like to change. The most important part of the well-being training requires teachers to develop new habit formation (Lally et al., 2009). For instance, teachers may improve their physical condition, enhance social relationships, or work on the area that will make them happy. They may also note down their blessings, write thankfulness letters (Lyubomirsky et al., 2011), or keep sports or meditation logbooks/journals (Moon, 2006). Feelings and emotions can be treated in compiling gratitude journals (Emmons & McCullough, 2003). It is also reasonable to ask the participants to mentor younger students, or other teachers, using the growth mindset messages (Aronson, Fried, & Good, 2002). By doing that, they will internalise the concept (the construct) of growth-oriented behaviour better. All that shall also be supplemented by teacher trainers acting as a role model for teacher trainees.

Implications

The findings lead to the following implications. The first pedagogical implication refers to the need to re-evaluate the main competencies of language teachers. During teacher training and development, apart from technical and functional knowledge, as well as communication and interpersonal skills, educators shall look at such commitments as perseverance, determination, positive attitude, and self-motivation. It is incremental not only to teach about well-being but also induce a growth mindset by letting teacher trainees notice acquirable dispositions. It will lead to strengthening resilience of the teachers, which refers to the power or ability to recover quickly from a misfortune, to be happy or successful again after some adverse situations.

The second implication stems from the research by Dweck (2006) who encourages educators to praise persistence, effort, time spent, instead of focusing on abilities or talent. In order to develop growth mindset teachers, certain degree of proactive behaviour and performance is needed on the part of the teachers. By focusing on developing positive habits (such as practicing gratitude, managing time, doing random acts of kindness), teachers will experience well-being not only in professional, but private lives as well. It will also help them prevent burnout. The study revealed that a change in the dispositions may lead to transformation within the individual, being a form of accomplishment of happiness.

The third implication concerns the promotion of well-being in educational settings. Organising workshops and lectures, giving the access to various publications on well-being (Szulc-Kurpaska, 2021) as well as encouraging pre-service teachers to conduct their own action-research, may induce positive

changes. Well-being training should be incorporated into the teacher education programmes on a regular basis as part of teacher training and development. It shall bring benefits to professional as well as personal conduct of teachers.

Finally, the most striking implication seems to refer to a need for re-evaluation of the given "school climate" (Lester & Cross, 2015) of pre-service teachers. Educators should model and nurture positive attitudes of growth mindset themselves so as to set a good example. Apart from that, it is crucial to specify various aspects that contribute to well-being and identity formation. Through training and individual practice, teacher trainees and trainers should notice the positive outcomes of the changes in behaviour, habits, attitudes, and stance in themselves and others. The use of reflective practice, as an awareness raising tool, will allow teachers to develop continuously and adapt to changes. All in all, we agree with Fredrikson (2011) that well-being may assist the teacher in managing challenges of everyday life and broaden their minds. As a result, they will be more creative and will communicate more effectively with others.

Limitations to the Study

There are certain limitations to the study that need to be acknowledged. Firstly, as far as reliability of the data analysis is concerned, the study findings are clearly subject to other interpretations. It is because teachers were researchers in the project which might have had an influence on the participants. Secondly, there is lack of verified data collected from M.A. students (intervention to perform Tasks no. 1.1), which might have shed light on the study. It is unknown whether they would have undergone any change from fixed to growth mindset. Even though the study took into consideration both the growth and fixed mindset dichotomy, as well as reported on the *continuum mindset* (*mindset orientation*) (Haukås & Mercer, 2021), it failed to find illustrative examples in some other parts of the triads of the study. What is more, the study did not reveal any major differences in other spheres and conditions, perhaps because the performance sphere has been the most conducive to change.

The main criticism of the current design to the study refers to the actual form of data collection and analysis. It mainly refers to the long-term effects of the intervention that are understudied. Considerably more work will need to be done to determine the effects of well-being on teachers after a few years. The items mentioned in the questionnaire cannot be verified as effective unless implemented and tested out by the in-service teachers themselves. Conducting similar research on a wider scale, may solve the problem and offer more insight into the nature of teacher mindsets and their well-being. In order to do that, some pre-testing and post-testing will be required to make pre-service and in-service teachers become more aware of the complexity of the training. One

treatment group and one control group could also be assigned to verify whether the instructions were effective. It would be advisable to continue working on the well-being of teachers and conduct an experimental study aiming at encouraging participants to perform other tasks, like practicing yoga, meditating, and writing a gratitude diary (Mercer, 2019). Additionally, another instrument for collecting more insightful data should be designed and implemented. Conducting interviews with the subjects, instead of the questionnaire, would grant the researchers, or those who would like to replicate the study, with an in-depth access to more insightful data.

Conclusions

The purpose of the current study was to determine pre-service teachers' mindsets, understood as a set of beliefs that cause a unique combination of various dispositions. The key findings are summarised below which may contribute to self-actualisation of the students-to-be-teachers and may be a gauge of their well-being in the future (Huppert, 2009). The main contributions of the mix-method research to the field of TT&WD are presented below, however the study provided tentative evidence of the participants' well-being and the findings need to be treated with considerable caution. The analysis of *competency* and *stance*, the other two dispositions, which will be analysed in the next article, may shed some light on the final conclusions of the research.

Firstly, the study provided the researchers with an illustration of either growth or fixed oriented mindsets. The construct applied in the study was valuable to be used with pre-service teachers, due to the fact that well-being of teachers is a universal idea that can be tested and applied at the initial stage of professional development. The results of the study indicate that the narrative questions, which were believed to act as a simple indication of real dispositions, concerned the well-being of novice teachers that needs further development. Greater efforts are needed to ensure that well-being is achieved by changing teachers' dispositions towards a growth mindset thinking. The first rationalisation might be that fixed mindsets can be modified by incorporating certain awareness-raising questions (ARQ) in teacher training, which enhance reflection and stimulate self-regulating processes. As we observed, well-being can be attributed to certain stance such as positive language use, behaviours, and attitudes, which growth mindset teachers apply in the school environment. The stance might be facilitated by developing successful mindset teachers. The findings suggest that it is possible to modify teachers' mindsets to help them achieve the state of well-being.

Secondly, the findings demonstrate the importance of developing well-being. As revealed in the intervention phase, it can be achieved by deliberate training of growth mindset dispositions. In order to create good habits, teachers need to conduct the activities over a period of one month or at least 21 days of repetition (Lally et al., 2009). And the fact that well-being might be altered by such interventions opens a window into developing key teacher competencies. However, a further study could assess the long-term effects of other such interventions as well. A general conclusion can be drawn from this study that these participants who were able to change their dispositions, they represented a growth mindset. Therefore, we may claim that such personalities may be inclined to decide on pursuing a teaching career and the teacher training course, which by its very nature, stimulates growth and development of a prospective teacher.

Thirdly, the study contributes to our understanding of well-being training. The results lead to the conclusion that teacher training and development in Poland needs to and can be modified. The term "modify," as defined by Merriam-Webster Dictionary,[3] shall be understood in terms of making "basic or fundamental changes in order to give a new orientation to or to serve a new end." It also refers to a situation in which a person can "undergo change." Fletcher (2001, p. 1) claims that learning (thus training) embraces "body, mind, emotions and spirit." In this view, Teacher Professional Development (TPD) shall not only entail knowledge accumulation or skills practicing, but it is to be understood as a wider concept that includes personal development, including moral and value dimensions. The idea is to focus not only on standards to be achieved by pre-service teachers (the "What") but to implement a *softer approach* to education (the "*How*").

One may conclude that happy and healthy teachers succeed in all aspects of life, both at work and in their family life. Therefore, greater efforts are needed to ensure such conditions in teachers' life. Research showed that stimulating well-being may reduce the burnout syndrome or even drop out from the profession (Mercer & Gregersen, 2020, p. 2). When teachers get a lot of positivity from their jobs, particularly from their interactions with students, there is a much stronger chance that the learners will flourish as well (Morris & Mercer, 2019). It is also believed that growth mindset teachers are more likely to develop growth-oriented learners. Teachers' attitudes, emotions, and motivation affect the learners positively (Becker 2014; Frenzel 2009; Roffey, 2012). Learners very often adopt the teachers' state, so if teachers are happy, this will also be contagious for the learners. It works both ways because positive attitude of the learners influences the teachers and stimulates them for work (Mercer & Gregersen, 2020, p. 2). When teachers flourish, also their learners

[3] Retrieved from: https://www.merriam-webster.com/dictionary/modify.

benefit in academic achievement and may reach the psychological well-being (Briner & Dewberry, 2007).

Following the results, it is argued that even though the study shows a degree of progress in relation to fixed and growth mindsets, some questions remain about the nature of their influence on teacher well-being. The authors of the study point to the complexity of the construct, as it is difficult to formulate mindsets on a set of implicit theories and because they may also interact with the explicit ones. Even though the recent research focused on pre-service teachers, the authors aim to continue the project "Promoting Well-being among Pre-service and In-service Teachers" in the following years, taking into consideration in-service teachers. The main focus will be placed on helping teachers understand the complexity of their profession; reflecting on knowledge, skills, and competences; challenging their beliefs, attitudes, and worldview; helping them become more aware of their individual mindset; as well as observing and modifying teachers' dispositions for teaching. We deeply believe that the humanistic approach connected with the Positive Psychology movement may bring many benefits not only for teachers themselves, but also for learners, parents, and the school milieu.

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Appendix 1

Question-based Narrative Study

This research focuses on studying teacher well-being. The decision to participate in this study is **voluntary**, which means you can take part or withdraw your answers anytime you wish. The data (name) is **confidential** which means that we will not share the information you give us that could identify you. This study does no harm to the participants, which means that your responses will have no effect on your English class/lecture; however, by answering the questions and doing the tasks (no. 1) you may improve some of the life habits. The information you provide us with may help other pre- and in-service teachers in the future.

Choose 5 out of 15 (you need to do one no. 1, one no. 2, one no. 3, one no. 4, and one no. 5 from whichever category). Write your answers in ca. 100 words.

NOTE! Copy and paste the question first and below write down your answer. We need to know which question you refer to.

Category 1: Performance

1) *What are you grateful for? **TASK:** List 10 items **every day** for a period of **one month.** Write down your observations.*
2) Can you restrain yourself from eating sweets, checking Facebook before exam session, or other things? How do you do it? Describe the way you succeed or fail.
3) What was the last thing you regretted?
4) Imagine a situation in which someone did something bad to you. How did you react? How do you perceive the person now?
5) What do you usually complain about? Who do you usually complain with?

Category 2: Competency

1) *How often do you do physical exercises? **TASK:** Take up a new sport and practice it for a period of **one month**. Write down your workout results and observations.*
2) How do you manage your time? Are you good or bad at TM? Give us a few examples.
3) What goals will you set for your nearby future?

4) Think of an unpleasant situation you found yourself in. Describe it. Say: who was involved? What was your reaction? How did you solve it?
5) What are your students' interests?

Category 3: Affect

1) *What are the "small things" that matter?* ***TASK:*** *List the "small things" (or "random acts of kindness") you do* ***every day*** *for someone (your parents, siblings, friends, unknown people) over a period of one month. Write down your observations.*
2) What is your reaction to your peers' or teachers' mistakes? How do they make you feel?
3) What are the main values in your life? Prepare a list of 3 most important ones. Justify what they mean to you.
4) Describe a difficult situation in which you remained "true to yourself."
5) What role other people play in your life as far as making important decisions?

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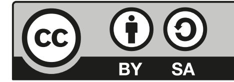

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Digital Game-Based Language Learning (DGBL): An Analysis of Polish and Spanish Teacher Candidates' Knowledge and Attitudes

Abstract

The digital gaming industry is experiencing rapid growth and presents significant potential for implementation in educational contexts. Despite a significant body of literature on Digital Game-Based Language Learning (DGBL), the focus has primarily been on students as game players rather than on teacher candidates as future educators. This study aimed to examine the attitudes and knowledge of 205 teacher candidates from Poland (n = 79) and Spain (n = 126) regarding digital games' potential for foreign language learning. Convenience sampling was used, and a mixed-method approach was taken to collect quantitative and qualitative data via pre-post surveys, digital game presentations, and class discussions. Participants undertook various DGBL activities and were grouped into teams to choose games for language learning, create infographics, and share their insights in a collaborative learning environment. Statistical analysis indicated differences in the first-time technology access and gameplay frequency between the Polish and Spanish cohorts. The Wilcoxon-signed rank test revealed a significant difference ($p \leq 0.05$) in two of the five scale dimensions: usefulness (U) and preference for digital games (PDG). The findings suggest that while teacher candidates hold a positive view of DGBL's potential, they lack practical knowledge of its implementation in the language classroom.

Keywords: digital games, language learning, teacher candidates, attitudes

The number of digital games and game players has been constantly increasing over the past few decades, as evident in recent studies (Baltezarević et al., 2018; Palma-Ruiz et al., 2020). Consequently, digital game-based language learning (DGBL) has been the focus of numerous studies (Reinders, 2012;

Godwin-Jones, 2014; Reinhardt, 2018; Sykes, 2018; Peterson et al., 2022). Some studies have concentrated on the impact of digital games on developing various language skills and components such as listening and speaking (Hwang et al., 2016; Wang & Han, 2021), reading and writing (Lee, 2019; Mazhar, 2019), grammar (Hashim, Rafiq, & Yunus, 2019; Kao, 2020), and vocabulary, particularly incidental vocabulary learning (Zou, Li, & Jin, 2021; Calvo-Ferrer & Belda-Medina, 2021). Other studies have explored the effect of digital games on student motivation, engagement, and interaction (Chen & Yang, 2013; Ebrahimzadeh & Alavi, 2016; Lorenset, 2017).

Research on the attitudes and knowledge of prospective teachers regarding digital games for language learning is limited, with only a few studies conducted on this topic (Chen et al., 2012; Alyaz & Genc, 2016; Belda-Medina & Calvo-Ferrer, 2022). Attitudes in this research refer to the teacher candidates' overall evaluation or opinion towards using digital games as a tool for language learning (An, 2018). It can encompass beliefs, feelings, and behaviors that shape their perception of digital games in education. Attitudes can be positive, negative, or neutral and can be influenced by various factors such as prior experience, cultural background, and personal preferences.

Given that young learners nowadays are frequent game players, it is crucial to investigate teacher candidates' knowledge and attitudes towards digital game-based language learning. This investigation is particularly relevant as teacher candidates need to learn how to incorporate digital games pedagogically into education, given their role as future educators. Therefore, there is a need to bridge the gap in understanding and help teacher candidates transition from young game players to effective educators who can integrate digital games into language learning effectively (Klimova & Kacetl, 2018; Belda-Medina & Calvo-Ferrer, 2022).

The number of studies about DGBL is constantly increasing, particularly those related to the integration of game-based apps (Hung et al., 2018; Chang & Hwang, 2019). Some authors have delved into the advantages, such as their wide availability and positive effect on student motivation (Gamlo, 2019), and their disadvantages, mainly limited functionality and lack of human interaction (Huang, Chang, & Wu, 2017). Although some teacher training programs nowadays include games and gamification in the curriculum, this area has been traditionally neglected, partly because it was deemed as non-fundamental to language learning and because in-service teachers lacked proper knowledge and formation (Emam & Roslin, 2021; Li & Lan, 2022). Today young students, who are often described as digital natives (Prensky, 2001), are constantly exposed to electronic devices and digital games.

Modern technology-oriented methods such as Connectivism (Downes, 2019) or Computer-Supported Collaborative Learning (Muñoz-Carril et al., 2021) propose new approaches and practices to help students and teachers reach

their goals in education. These are three modern methods that emphasize the importance of collaboration and networks in learning. The use of digital games in language learning can connect learners with authentic language use and provide them with opportunities to engage in language practice that is meaningful and relevant to their interests and experiences. Moreover, games can provide a platform for learners to collaborate and interact with each other, as well as with native speakers of the target language, which can create a network of connections that support language learning. Through these interactions, learners can receive feedback and guidance, which can enhance their language skills and knowledge. Therefore, the integration of DGBL in teacher training programs seems to be a necessary step in 21st-century education as pointed out in several works (Chen et al., 2012; Alyaz & Genc, 2016; Newcombe & Brick, 2017; Reinhardt, 2018; Casañ-Pitarch, 2018a).

This study aims to achieve three specific objectives. The first objective is to assess the existing knowledge of digital game-based language learning (DGBL) among language teacher candidates in two different settings, Poland (n = 79) and Spain (n = 126). The second objective is to compare the attitudes of the candidates towards the incorporation of digital games in language learning. The third objective is to measure the impact of a learning module on DGBL, coupled with student presentations, on the candidates' attitudes towards digital games. Teacher candidates play a crucial role in the integration of digital games as they will be responsible for designing and implementing language learning activities that incorporate these games. The comparison of two distinct settings will facilitate the identification of potential cultural differences that may affect the adoption and implementation of DGBL in the classroom. By assessing the existing knowledge on DGBL among language teacher candidates, this study can identify areas of strength and weakness, which can inform future training programs and curricula to better prepare teacher candidates for integrating digital games into language learning.

This research paper consists of four main sections: a literature review on attitudes toward Digital-Game Based Language Learning (DGBL), objectives and research questions, context and methodology, and results and conclusions. The literature review provides an overview of existing research on attitudes toward DGBL in language learning, including its potential benefits and challenges. The objectives and research questions aim to investigate the attitudes and perceptions of language learners and teacher candidates in the context of DGBL. The context and methodology section describes the participants, data collection methods, and data analysis techniques used in this study. The results section presents the findings of the study in terms of teacher candidates' attitudes toward the use of digital games in language learning after the intervention. Finally, the conclusions section summarizes the main findings of the study and advanced future research in the field of DGBL.

Attitudes toward Digital-Game Based Language Learning (DGBL)

One of the technological consequences of the COVID-19 impact worldwide was the unprecedented increase of digital games and gamers around the world (Şener, Yalçın, & Gulseven, 2021; Einav, 2022; Han et al., 2022). There is nowadays an increasing interest in DGBL as evidenced by the number of publications about the use of digital games in the foreign language classroom, particularly concerning vocabulary learning (Hung et al., 2018; Xu et al. 2020; Zou, Huang, & Xie, 2021; He, 2022). Digital games can be used to learn vocabulary in English through various methods such as explicit and implicit vocabulary instruction and they can be designed to promote active vocabulary use through tasks and challenges that require players to apply their vocabulary knowledge.

In our study, digital games are defined as any game on a console, handheld device, smartphone, or computer, including browser games, which enable one or multiple players to engage with the content primarily for entertainment purposes. The current study analyzes three types of games: educational games, commercial games, and game-based apps. Digital educational games or edugames are interactive games designed to achieve a specific learning outcome or educational objective. These games use game design elements to engage learners and provide a fun and immersive learning experience. Commercial Off-The-Shelf (COTS) games are pre-existing games that are commercially available for entertainment purposes, such as popular consoles or computer games. These games are not specifically designed for educational purposes but can be repurposed for language learning through various modifications and adaptations. Digital game-based apps are applications that use game design elements to enhance user engagement and motivate learning or skill development. These apps are specifically designed for mobile devices such as smartphones and tablets and can cover a wide range of topics, including language learning.

Several studies have indicated a positive view of digital games in game-based learning (Janakiraman, Watson, & Watson, 2018; Voulgari et al., 2020). The benefits of digital games were identified as cognitive skill development in areas such as problem-solving, risk-taking, and reasoning, as well as improved motivation and interaction in the learning process (Blumberg et al., 2019; Mayer, 2019). However, some studies also identified negative attitudes towards digital games and their integration in the classroom among in-service teachers, citing pedagogical inadequacies, distraction, and ineffective learning structure as reasons for the skepticism (Burston, 2014; Gilakjani & Leong, 2012; De Grove, Bourgonjon, & Van Looy, 2012). Pre-service foreign-language teachers showed positive attitudes towards digital games, but the main difficulty for them was the lack of practical knowledge and unawareness of effective peda-

gogical methods for integrating digital games into the classroom (Chen et al., 2012; Kruk, 2017; Kuru Gönen, 2019).

Digital games have the potential to facilitate student-centered learning, in which teachers act as facilitators, and students are encouraged to actively participate in their learning, engage in discussions, work collaboratively, and apply their knowledge in real-world situations. While gaming proficiency may involve skills such as strategy, quick decision-making, and problem-solving, effective teaching of English through digital games requires additional knowledge and skills related to pedagogy. Therefore, it is necessary to consider major curricular changes that incorporate gaming pedagogy (Sardone & Devlin-Scherer, 2009, p. 65). According to these authors, the integration of a digital game module in teacher education courses and alternative forms of educational technology can strengthen student motivation, enhance their innovation capability, and increase interaction (Sardone & Devlin-Scherer, 2010).

In regard to pre-service teachers' perceptions, Demirbilek, Yılmaz, and Tamer (2010, p. 720) revealed that the use of computer games during instruction, the features of the game, and the hardware and software infrastructure of the classroom influence instructors' and students' attitudes towards computer games. In a study among pre-service teachers of English as a foreign language, Blume (2020) demonstrated a positive correlation between game-playing and beliefs, and between game-playing frequency and the perceived usage of language learning strategies. The author collected information on students' experience with digital media for language learning, language proficiency, language learning strategies, digital game-playing habits, digital language learning practices, and their attitudes towards digital game-based language learning. The author concluded that no previous learning experience in digital games is better than a negative experience.

Obstacles to the effective integration of digital games in education include negative attitudes among some in-service teachers and a lack of technical and pedagogical support. Kaimara et al. (2021, p. 838) exposed that many current teachers perceive potential barriers such as the lack of financial resources, preference for traditional teaching methods and stereotypes about the value of digital games, lack of ICT training, lack of infrastructure, and lack of educational policy. Attitudes towards incorporating digital games in language learning are generally influenced by three primary factors: prior experience playing games, the opinion of influential people such as teachers and parents, and the perception of one's ability to use digital games effectively (Mertala, 2019; Fokides & Kaimara, 2020).

Regarding pedagogical approaches, Munkundan, Kalajahi, and Naghdipour (2014) analyzed the potential of adopting digital games in education from the scope of distinctive learning theories and game design principles. The authors conclude that teachers play a crucial role in selecting and employing digital

games for language learning. As a source of linguistic input, language teachers should carefully choose games that align with learning goals and cater to learners' needs. It is important for educators to continually challenge their skills and keep up with technological advancements to effectively integrate digital games into the classroom.

Prior research has suggested that pre-service language teachers tend to display a positive attitude towards incorporating digital games in foreign language classrooms. Despite this positive perception, digital games are not commonly included in teacher training programs, leading to a deficiency in experience and preparation among language teacher candidates (Kennedy-Clark, 2011; Hsieh & Wang, 2008). The integration of digital games in education in Spain has been gaining momentum and the educational authorities have recently shown interest in promoting their use in the classroom but the extent of the integration of digital games in education varies across different regions in Spain (Alonso-García et al., 2021). Teachers may distrust the use of digital games in education due to a lack of training, support, and personal biases against video games such as the distraction factor. In Poland, some educational institutions have incorporated gamification and digital games into their curricula, especially in technical studies, because they recognize that games can be effective in promoting student motivation; however, implementing a system that can fully engage and motivate students through games requires significant effort and design considerations but the main challenges arise from educational policymakers who may not be prepared to implement changes (Głowacki et al., 2018).

To address this issue, our study seeks to fill this gap by assessing the prior knowledge and attitudes towards digital games among language teacher candidates and comparing the results across two distinct educational settings, namely Poland and Spain.

Objectives and Questions

This research has three main objectives:

- To analyze technology ownership and interest among Polish and Spanish language teacher candidates;
- To measure their attitudes toward the integration of digital games in language learning from a comparative perspective;
- To evaluate the effect of using a learning module about DGBL on the teacher candidates' attitudes toward digital games as future educators.

The stated objectives align with the following research questions:

1. What is the technology ownership and interest among language teacher candidates from Poland and Spain?
2. How do the attitudes of language teacher candidates from Poland and Spain towards the integration of digital games in language learning compare with each other?
3. How does the use of a learning module about DGBL affect the attitudes of language teacher candidates from Poland and Spain towards digital games as future educators?

Context and Methodology

This two-month research study involved 205 EFL teacher candidates (n = 205) from two different universities, 79 from Poland (Pol. = 79) and 126 from Spain (Sp. = 126), all of whom were enrolled in their third year of college. The study was conducted using convenience sampling. Their English proficiency level ranged from B2 to C1 according to the Common European Framework of Reference (CEFR) (Council of Europe, 2001), with twelve students being native speakers (C2). All participants were taking a similar subject entitled Applied Linguistics at their respective universities, which was taught by the researchers, and the classes met twice a week for two-hour sessions for two months. The gender distribution was similar in both settings, with 75% female and 25% male students among the Polish students (n = 79) and 81% female and 19% male students among Spanish participants (n = 126). Regarding age, 97% of the Polish and 96% of the Spanish students were between the ages of 20 and 30.

During the two-month intervention, all participants were required to complete a learning module on DGBL. This module included reading two articles (Klimova & Kacetl, 2018; Sykes, 2018) and engaging in discussions about the benefits and challenges of incorporating digital games in language classrooms. In addition, participants were provided with videos and web links showcasing different games related to language learning.1 Additionally, there was a test based on Moodle content. The language of instruction was English, and the activities were identical for both Polish and Spanish students. To assess their understanding of the material, participants were asked to give a short collaborative presentation on DGBL, in which they explained the digital games they had selected and how they could be used for language learning.

[1] Three websites: *Real English for Gamer Learners* https://bit.ly/2H7T2pb, *The Best Video Games For Learning Languages* https://bit.ly/43WHUnF and *Edutopia* https://edut.to/3Lm5d3g.

Different instruments were used in this mixed-method research to gather quantitative and qualitative data. Quantitative data were collected through a pre-post survey administered on the first and last day of class. The pre-survey included four sections: the first one contained some socio-demographic information; the second integrated ten questions related to technology ownership and usage, including prior knowledge, frequency of use, and preference for digital games; the third section was related to confidence and interest in technology based on a validated scale by Lei (2009) for pre-service teachers; the fourth section was based on a scale by Bourgonjon et al. (2010) about attitudes toward digital games and contained 20 items specifically related to the use of digital games in education. It was divided into four dimensions: personal experience (EXP), usefulness (U), learning opportunities (LO), and preference for digital games (PDG). The post-survey included two sections: the first section incorporated five questions about the digital games presented in class; the second section replicated the last section of the pre-survey about participants' attitudes toward digital games based on Bourgonjon et al. (2010). Quantitative data were analyzed using the IBM SPSS 22 statistical software to determine whether there is a significant difference between the pre- and post-survey results and for descriptive statistics

Qualitative data were gathered through a semi-structured discussion during the last week of class. After the presentations, participants discussed the potential benefits and limitations of the games demonstrated in each educational setting and shared their insights about the games explained in class. One researcher led the discussion while the other transcribed the most important comments. Then, both researchers coded the student comments using thematic analysis (TA).

The study was conducted in accordance with the Declaration of Helsinki and following the regulations of both institutions for studies involving humans: the University of Alicante (Spain) (https://bit.ly/3yoLb05) and the Silesian University of Technology (Poland) (https://bit.ly/3NTz6Wr). The project adheres to ethical principles set out by both institutions, including specific regulations regarding requirements related to information, consent, anonymity, and the right to withdraw from the project. All participants gave written consent to use the data obtained for scientific purposes, and their names were omitted to ensure anonymity.

Results

The pre-survey results about technology ownership showed similar scores for both groups since all participants had a smartphone, and most of them had a laptop or tablet, and a computer as shown in Table 1. However, some differences between Polish and Spanish students emerged regarding first-time access to technology. Polish students indicated that they started to use electronic devices earlier than their Spanish counterparts (item #2). The results of the frequency of computer use were also similar with slightly higher scores among Spanish teacher candidates.

Table 1

Technology Ownership and Usage

Item	Choices	Polish (*n* = 79)	Spanish (*n* = 126)
1. Technology ownership	Computer (PC/Mac)	72.2%	69.7%
(several options)	Laptop or tablet	93.6%	92.5%
	Smartphone	100%	100%
2. Computer/smartphone first-time access	Early start (pre-school)	16.4%	6.3%
	Elementary school	81.3%	54,5%
	Secondary school	2.3%	39.2%
3. Computer usage per day (inc. class time)	< 1 h	0%	0%
	1–2 h	16.2%	4.7%
	2–3 h	19.7%	32.8%
	3–4 h	42.8%	39.9%
	4+	21.3%	22.6%

In terms of gameplay frequency per week (#1), the results showed that Polish students played games more frequently than the Spanish teacher candidates. Over 32% of the Spanish participants reported that they used to play games at an earlier age but do not play them now. Regarding game platforms (#2), both groups preferred using computers and tablets over other electronic devices. However, Spanish participants seemed to prefer the Nintendo platform over the PlayStation, whereas Polish students showed the opposite preference.

Table 2

Gameplay Frequency and Preferred Platform

Item	Choices	Polish (*n* = 79)	Spanish (*n* = 126)
1. Game play per week	Never	22.1%	32.2%
	< 1 h	18.5%	27.6%
	1–3 h	19.3%	18.5%
	3–5 h	12.4%	11.3%
	5+	27.7%	10.4%
2. Game platform	Nintendo	12.4%	44.2%
(several options)	Play Station	40.3%	33.1%
	XBOX	37.5%	6.4%
	PC/Mac	62.7%	53.7%
	Tablet	59.2%	77.2%
	Smartphone	12.3%	28.5%
	Other	11.8%	16.3%

Regarding participants' confidence and interest in technology, the pre-survey results yielded similar scores for most of the items, as shown in Table 3. A Mann-Whitney test for two independent samples revealed statistically significant differences ($p < 0.05$) in only two items: #6 ($p = .021$) and #7 ($p = .007$). As illustrated in Table 3, interest in technology was higher among Spanish participants, in contrast to more moderate scores among Polish students. Both groups indicated that they were self-confident (#4 & 10) and believed in the positive impact of technology on learning (#7 & 8), which is consistent with previous research findings (Lei, 2009; Rahimi & Yadollahi, 2011).

In contrast, participants did not support the idea, claimed by some in-service teachers in previous studies (Zhao & Frank, 2003), that technology could isolate students from one another (#5).

After completing the pre-survey, the teacher candidates were exposed to various materials about DGBL through a learning module in Moodle. During the first week, participants had to read two articles and visit different websites that provided information about the use of digital games in language learning. They then completed a questionnaire about the materials included in the learning module. The questionnaire was likely designed to evaluate the students' knowledge of how games can be used to teach language, including the types of games that can be used, the benefits and challenges of using games, and the strategies that can be employed to ensure effective learning through gaming.

Table 3

Confidence and Interest in Technology

	N = 205 α = .828	Polish (N = 79)		Spanish (N = 126)		Asymp. Sig (2-tailed)
	Item	Mean	SD	Mean	SD	Z
1	Computers are generally reliable.	3.9	0.62	3.8	0.81	.706
2	The more technology you use, the more respect you will get from your peers.	2.2	0.83	2.4	1.17	.347
3	I feel comfortable using technology.	4.2	0.81	4.1	0.85	.728
4	I do well with computer technologies.	3.5	0.92	3.8	0.97	.128
5	Computers and related technologies will isolate students from one another.	2.5	0.88	2.7	1.05	.175
6	I am interested in computers and related technologies.	2.9	1.21	3.4	1.13	.021
7	I am interested in technologies that will help me learn more in the future.	3.5	1.10	4.0	0.87	.007
8	I believe that technologies can help me learn better.	4.1	0.76	4.1	0.90	.830
9	I can solve most of the problems when my computer doesn't work.	2.8	1.14	2.9	1.17	.574
10	I am confident in using technology in my learning.	3.7	0.87	3.8	1.01	.227

Next, all the participants were randomly arranged into teams of 4–5 members, and each team was required to select three different types of games: a commercial game, also known as commercial-off-the-shelf games (COTS), primarily designed for entertainment but used in this project for educational purposes; a serious game originally designed as a learning tool; and a game-based educational app. The teacher candidates were provided with a rubric designed to evaluate different digital games based on a five-point scale (interface, usability, engagement, and education value), which is presented in the Appendix.

During the 15-minute presentation, each team had to illustrate how the games they selected could be effectively used for language learning while their classmates were given some time to play those games using their laptops, tablets, and smartphones. The presentations contained a wide range of games

illustrating different genres and types. Some of the commercial games (COTS) selected were addressed to younger learners in elementary education, such as the social simulation game *Animal Crossing New Horizon*, the adventure puzzle game *Layton Brothers Mystery Room*, and the popular sandbox video game *Minecraft*. Others were more oriented to secondary education students, for example, the critically acclaimed episodic adventure game *Life is Strange*, the cinematic third-person thriller game *Detroit*, the strategic life simulation video game *The SIMS*, the 3D massively-multiplayer online action role-playing game (MMOARPG) *Lost Ark*, and the free-to-play (F2P) online multiplayer video game *Fortnite*. Some teams selected well-known COTS, such as the first-person shooter video games *Call of Duty* and *Fran Cry* 3, while others opted for action role-playing games (RPG)—*Bloodborne* and *Skyrim*, and action-adventure video games—*Assassins Creed II*.

In *Assassins Creed II*, language learners can focus on learning and memorizing vocabulary related to the historical settings. For example, learners can create a list of historical figures, events, and cultural elements mentioned in the game and practice their pronunciation and spelling of these terms. Additionally, learners can use the game's subtitles and dialogues to improve their listening and comprehension skills and learn new vocabulary in context. Another strategy for using Assassin's Creed is to focus on specialized vocabulary related to the assassin's tools and weapons. The game features a variety of weapons, such as swords, daggers, and crossbows, as well as tools like smoke bombs and grappling hooks.

Some of the serious games mentioned, also known as edugames, were mostly addressed to children. For example, *Guess Who*? for basic sounds, *Papua Learn English* for pronunciation, *Little Chatterbox* and *Mingoville* for pronunciation and vocabulary, *Little Mouse's Encyclopedia* and *Guess Up* for vocabulary development, and *Grammar Ninja* for learning grammar. A few games were proposed for more advanced learners, such as *It's a Deal* to learn some English business vocabulary and *Alchemy Lab* for scientific vocabulary. Participants highlighted some of the potential benefits of using edugames, such as increased motivation and enhanced interaction, which are in line with previous works (Westera, 2019; Chen & Hsu, 2020).

Concerning game-based apps, some examples were *Brainpop* for reading and listening, *Wordwall* and *Wordle* for vocabulary building, *Bubbles* for vocabulary and reading comprehension, *Buddy.ai* for listening and speaking, and *Exam Lift* for all four skills. Two teams explained the affordances and limitations of the language learning app *Memrise*, and the language exchange app *Hello Talk*, while others opted for apps with social networking options such as *Madlipz*, which lets its users dub their favorite series or animations and share them online. Consistent with previous research, dictionary and lexical apps

appeared to be the most popular applications among students (Nami, 2020). Figure 1 shows three examples of infographics created by the participants.

Figure 1

Infographics about Digital Games Created by Teacher Candidates. Permission to Reproduce the Images below Granted by: Sandra Abad (1), Kaoutar Smaili (2), Victor Marrahi (3)

1

2

3

The last week after the presentations, all participants completed a post-survey with two sections. The first section included four questions about students' satisfaction with the digital games and class presentations. The second section replicated the same questions included in the third section of the pre-survey, which aimed to measure teacher candidates' attitudes toward digital games before and after the intervention. This section was based on a validated scale by

Bourgonjon et al. (2010) and consisted of 20 items arranged in four dimensions: experience (EXP), usefulness (U), learning opportunities (LO), and preference for digital games (PDG), as shown in Table 4.

The results of the pre-survey indicated some inter-group differences. Polish participants reported (#4) playing games less frequently than people their age, but still more often than their Spanish counterparts (M = 1.7 and M = 2.1, respectively). Additionally, they supported the idea (#16) that digital games provide opportunities for critical thinking (M = 3.6), as demonstrated in previous studies (Hewett, Zeng, & Pletcher, 2020). On the other hand, Spanish students gave stronger support for the effect of using digital games on the self-controlled learning process (#12) (M = 3.5) and the motivating effect of digital games on the learning process (#17) (M = 4.1), both in the Learning Opportunities (LO) section. The three items in the Preference for Digital Games (PDG) section yielded higher scores among Spanish teacher candidates (#18–20), which might be surprising given that they played less frequently than their Polish counterparts. However, the novelty factor may play a critical role in this case, as suggested in previous research (Sánchez-Mena, Martí-Parreño, & Miquel-Romero, 2019).

In the post-survey results, the inter-group differences observed in the pre-survey decreased in all sections, particularly those items previously analyzed (#4, 12, 16–20).

Table 4

Attitudes about the Use of Digital Games for Language Learning

	n **= 205 α = .955**	**Polish (*n* = 79)**		**Spanish (*n* = 126)**	
		Pre	Post	Pre	Post
EXP	1. I like digital games.	3.5	3.5	3.5	3.6
	2. I like playing digital games.	3.4	3.5	3.5	3.6
	3. I often play digital games.	2.5	2.7	2.5	2.6
	4. Compared to people of my age, I play a lot of digital games.	2.1	2.2	1.7	1.8
	5. I would describe myself as a gamer.	2.0	2.2	1.7	1.9
	6. I play different types of digital games.	2.3	2.4	2.3	2.5
U	7. Using digital games in the classroom would improve my performance.	2.6	3.7	2.7	3.4
	8. Using digital games in the classroom would improve my learning productivity.	2.9	3.9	3.0	3.5
	9. Using digital games in the classroom would improve my effectiveness.	2.6	4.0	3.0	3.6

	n = 205 α = .955	Polish (*n* = 79)		Spanish (*n* = 126)	
	10. Using digital games in the classroom would help me to achieve better grades.	2.5	3.9	2.9	3.6
LO	11. Digital games offer opportunities to experiment with knowledge.	3.5	3.6	3.6	3.7
	12. Digital games offer opportunities to take control over the learning process.	3.0	3.4	3.5	3.6
	13. Digital games offer opportunities to experience things you learn about.	3.6	3.7	3.7	3.7
	14. Video games offer opportunities to stimulate transfer between various subjects.	3.1	3.6	3.6	3.7
	15. Digital games offer opportunities to interact with other students.	3.3	3.9	3.8	3.9
	16. Digital games offer opportunities to think critically.	3.1	3.6	3.3	3.5
	17. Digital games offer opportunities to motivate students.	3.4	4.0	4.1	4.3
PDG	18. If I had the choice, I would choose to follow courses in which digital games are used.	2.7	3.9	3.1	3.7
	19. If I had to vote, I would vote in favor of using digital games in the classroom.	3.0	4.0	3.4	3.8
	20. I would like to use more digital games in my classes.	3.0	3.9	3.4	3.9

The Wilcoxon signed-rank test was used to compare the non-parametric data obtained for both groups and determine the existence of any statistically significant intra-group differences before (pre-) and after (post-) the intervention. Consistent with previous studies (Belda-Medina & Calvo-Ferrer, 2022), the analysis revealed significant differences ($p < 0.05$) in the usefulness (U) and preference for digital games (PDG) sections, indicating that participants' attitudes towards digital games were more positive after the intervention. Moreover, the differences in the LO section results were more pronounced (#14–17) among the Polish participants.

Table 5

Attitudes about Digital Games before and after the Intervention

n = 205		Polish (*n* = 79)		Spanish (*n* = 126)	
	Item	Z	Asymp. Sig. (2-tailed)	Z	Asymp. Sig. (2-tailed)
EXP	1	-1,433[b]	.163	-1,414[b]	.157
	2	-,816[b]	.414	-1,732[b]	.083
	3	-1,000[b]	.317	-1,523[b]	.136
	4	-1,414[b]	.157	-1,438[b]	.163
	5	-,577[b]	.564	-1,238[b]	.081
	6	-1,633[b]	-102	-2,449[b]	.093
U	7	-6,286[b]	.000	-7,458[b]	.000
	8	-6,141[b]	.002	-6,136[b]	.003
	9	-6,730[b]	.001	-6,954[b]	.002
	10	-6,771[b]	.001	-6,517[b]	.002
LO	11	-,253[c]	.800	-1,414[b]	.128
	12	-,413[c]	.680	-2,104[b]	.157
	13	-,060[c]	.952	-,333[b]	.739
	14	-2,111[b]	.035	-,447[b]	.655
	15	-3,000[b]	.023	-1,414[b]	.153
	16	-2,121[b]	.034	-1,000[b]	.317
	17	-5,391[b]	.001	-4,971[b]	.012
PDG	18	-6,357[b]	.002	-6,094[b]	.002
	19	-6,329[b]	.002	-5,529[b]	.013
	20	-6,216[b]	.002	-5,909[b]	.017

Qualitative data were gathered through class discussions. In the last week, Polish and Spanish participants engaged in a semi-structured discussion. The instructors later summarized the most relevant comments and codified the students' insights into main themes through thematic analysis. Some of the language skills that can be taught through the use of digital games include reading, writing, listening, speaking, and vocabulary acquisition. For reading, video games can offer an immersive and interactive environment where players have to read and comprehend text to progress through the game. Games like

The Elder Scrolls V: Skyrim and *The Witcher 3: Wild Hunt* provide engaging and challenging narratives that require players to read and understand the story to complete quests and advance through the game. For listening and speaking, language learners can benefit from games like *Overwatch* and *Fortnite*, which provide voice chat features that allow players to communicate with each other in real time. By participating in voice chat, language learners can practice their speaking and listening skills in a fun and authentic context. In terms of writing skills, video games allow players to create and design their games, worlds, and narratives. For example, *Minecraft* and *Roblox* are popular games that allow players to design and create their virtual worlds and stories, which require them to practice their writing skills.

Teacher candidates identified various benefits of using digital games in language learning, with "interaction" emerging as a primary theme, as demonstrated in Table 6 (P182, P38, P124). In particular, online multiplayer games have provided students with opportunities to communicate in English with other players worldwide, including native speakers. This finding is consistent with previous research on willingness to communicate (Horowitz, 2019). Additionally, Spanish participants noted the usefulness of digital games for learning vocabulary (P182). Despite these benefits, both groups acknowledged that some in-service teachers often overlook the potential of digital games as a learning tool and suggested introducing such games in the classroom (P96). A few teacher candidates also acknowledged the potential for digital games to serve as a distraction (P124), which is consistent with previous research (Casañ-Pitarch, 2018b). Ultimately, participants concluded that the adoption of digital games in the language classroom could provide three key benefits: enjoyment, enhanced motivation, and autonomous learning. This conclusion is consistent with prior research findings (Belda-Medina & Calvo-Ferrer, 2022).

Table 6

Participants' Comments on Using Digital Games for Language Learning

Participant	Theme	Comment
182 (Sp, f)	Vocabulary learning & interaction	It can be interesting, especially from the point of view of vocabulary learning, since you can learn a lot of specific vocabulary related to the games that you play. Besides, if they are multiplayer games, you may have the opportunity to speak to English native speakers.
61 (Pol, m)	Critical thinking	In my opinion, learning through video games opens up a lot of interesting opportunities. Games allow us to interact with content on different levels, it can help us think critically, think logically. It can teach us problem-solving. I think learning in general could benefit from incorporating more games in it.

Participant	Theme	Comment
96 (Sp, m)	Effectiveness	I've been playing video games since I was five years old. I'm a PC gamer and I've always liked video games, but as I've grown up my gaming time has been decreasing. I think video games are a very interesting and effective way to learn. I have learned and improved my language skills and intuition through video games.
38 (Pol, m)	Usefulness and interaction	For me, using video games in learning English is very useful. I have some personal experience with that and I think there's no better way to learn some phrases or vocabulary specific to a given subject than to immerse in the world of a game. Games require constant focus, unlike other media such as movies or even books. The strongest quality of games in this matter is that they are interactive and this is a great possibility because in this entertainment that they provide the knowledge can be delivered in a pleasant way.
21 (Pol, f)	Listening and vocabulary	I believe that games can teach us new vocabulary from various fields. Games are often available in many languages and we can turn on subtitles, so that we can visualize the spoken words and understand them better. Even though we may not know a certain word, we can understand it from the context depending on what's happening on the screen. We can learn new slang words and collocations.
124 (Sp, f)	Motivation & distraction	I think it is a good idea to encourage learning in class and the concepts are learned faster. However, they can also be distracting.

Conclusions

Three main conclusions can be drawn from this study. First, the results of the study on technology ownership among language learners showed no differences between Polish and Spanish participants. However, it was found that Polish students had their first access to electronic devices earlier and had a higher frequency of gameplay. All participants demonstrated high confidence and a strong interest in technology integration in education. The finding suggests that factors such as unequal access to technology and variation in usage frequency during early developmental stages may not have a significant influence on the level of interest exhibited by adult college students, which is consistent with previous results (Chen et al., 2012; Kruk, 2017; Barr, 2018).

Second, it was observed that both Spanish and Polish teacher candidates had limited knowledge of the pedagogical applications of digital games in language learning. Despite identifying themselves as gamers, they lacked pedagogical knowledge on the fundamental aspects of game-based learning. A teacher

candidate with limited teaching experience may struggle to determine how to align the learning objectives and outcomes of children and young learners with certain games. For example, they may encounter difficulties in aligning game content with curriculum standards, balancing game-based learning with traditional instruction, and ensuring effective use of technology, depending on each student's needs. However, after engaging in a learning module on DGBL and participating in team presentations, they gained valuable insights on the use of diverse digital games, including commercial and educational games, for various purposes such as intentional and incidental vocabulary acquisition. Notably, this was the first experience for all participants to complete a learning module on DGBL. Therefore, it is suggested that teacher training programs should be updated to integrate DGBL into their curricula and provide better preparation for future educators in transitioning from game players during childhood to game implementers in their teaching careers, as highlighted in previous literature (Foster & Shah, 2020; Belda-Medina & Calvo-Ferrer, 2022).

The third finding of this study is that the intervention, which involved a learning module and student presentations, had a significant impact on teacher candidates' attitudes towards DGBL, as evidenced by the pre-post-survey results. Consistent with prior research (Belda-Medina & Calvo-Ferrer, 2022), statistically significant differences were observed in the dimensions of usefulness (U) and preference for digital games (PDG) among both groups. Furthermore, it was found that teacher candidates' perceptions of the usefulness of digital games in language learning were similar across educational settings, despite the lack of formal training in this area. This finding is in line with previous studies (Blume, 2020; Dashtestani, 2022) that highlight the effectiveness of digital games as a learning tool, particularly in collaborative learning environments (Kaimara et al., 2022), due to their interactive features and motivational effects.

The results of the study showed that the digital game-based language learning module was effective in increasing participants' knowledge and changing their attitudes towards digital games for language learning. Specifically, the post-intervention survey results showed a statistically significant increase in participants' positive attitudes towards the use of digital games for language learning, as well as an increase in their perceived knowledge of how to effectively integrate digital games into their teaching practice. Based on these findings, universities looking to implement similar interventions should consider incorporating collaborative learning components, and provide opportunities for participants to explore and choose games that are relevant to their teaching contexts.

The limitations of this research are mainly due to the participants' varying levels of prior knowledge and experience with digital games. The study did not consider differences in the types of digital games that participants had experience with, which could have influenced their preferences and perceptions

of DGBL's effectiveness for language learning. Additionally, the study did not assess the frequency and duration of participants' digital game usage, which may have impacted their perceptions towards the educational value of digital games. Further research should be conducted in diverse educational settings and with different types of games to compare their effectiveness on language proficiency, engagement, and motivation. The study should involve pre-service teachers who not only have familiarity with digital games but also possess the pedagogical knowledge and skills required to implement them effectively. In conclusion, it is essential to revise the curriculum to include digital games in language learning and incorporate them into teacher training programs to ensure that upcoming educators have the necessary knowledge and skills to use digital games in the language learning process.

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Appendix

Attitudes towards Video Games

Rubric used to evaluate digital games for language learning

Criteria	Excellent (5)	Good (4)	Satisfactory (3)	Needs Improvement (2)	Poor (1)
Educational Value	The game is educationally valuable and suitable for language learning as it supports the acquisition of language skills and aligns with the learning objectives.	The game has some educational value and is quite appropriate for language learning. It aligns with some learning objectives and supports the acquisition of some language skills.	The game has limited educational value and is somewhat appropriate for language learning. It partially aligns with learning objectives.	The game has marginal educational value and is not appropriate for language learning. It aligns with only a few learning objectives.	The game has no educational value and is completely inappropriate for language learning.
Engagement	The game is highly engaging, incorporating feedback, rewards, and challenges to motivate players to continue playing.	The game is quite engaging and motivates players to continue playing. It incorporates some elements such as feedback, rewards, and challenges.	The game has limited engagement and is somewhat motivating for players. It incorporates few elements.	The game lacks engagement and is not motivating for players to continue playing. It incorporates few elements.	The game is completely disengaging and does not motivate players to continue playing.
Usability	The game is user-friendly with clear controls and instructions, accessible to all skill levels, and accommodates diverse learning style.	The game is quite easy to use and navigate, with adequate instructions and controls. It is accessible to most players of varying skill levels.	The game has limited usability and is somewhat difficult to use and navigate. It has unclear instructions and controls.	The game lacks usability and is difficult to use and navigate. It has unclear instructions and controls that may limit accessibility for most players.	The game is completely unusable and has no instructions. It is inaccessible to most players.
Interface	The game's audiovisuals are high-quality and appropriate for the target audience, enhancing educational value and engagement.	Good audiovisuals that support language learning and are somewhat appropriate for the game's target audience.	The audiovisuals are fair and they partially support language learning.	Poor quality audiovisuals that do not support language learning and are not appropriate for the game's	No audiovisuals or inappropriate audiovisuals that detract from language learning.

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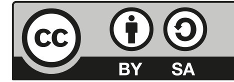

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Are Portuguese Higher Education Students Motivated to Study English as a Second/Foreign Language?

Abstract

Being motivated is fundamental for any individual to achieve personal and professional success. In the context of learning in higher education, motivation is crucial for achieving this success. Understanding the motivational state of students is essential for higher education managers and teachers. Understanding students' amotivation, intrinsic and extrinsic motivation can provide vital information to initiate changes in teaching and learning. In this sense, measuring amotivation, intrinsic motivation, and extrinsic motivation allows for understanding students' motivation's general state. This study aims to analyse the motiva-

tion of 145 Portuguese higher education students (70 male and 75 female) aged between 17 and 47 years old who studied a second/foreign language (English) in Portugal during the academic year of 2020/2021. We used the Academic Motivation Scale to measure motivation to study English. The results show that students are not demotivated. The motivation that prevails in the results is intrinsic motivation, and extrinsic motivation was insignificant. This study's results contribute to the literature on motivation to study second languages, especially concerning the need to understand why students are only intrinsically motivated. Are the lessons, the teaching methodologies, the techniques and the contents not able to motivate them?

Keywords: intrinsic and extrinsic motivation, language learning, ESL, EFL, higher education

The quality of teaching is increasingly fundamental to the success of any institution, whatever the level of education. In this sense, students' motivation is essential to increase the quality of the institutions' teaching process to achieve their short, medium and long-term objectives. In this sense, organisations aim to continuously improve the quality of their products and services at the most diverse levels of demand, responsible for providing quality education to their students (Yildiz, 2014). Furthermore, society expects institutions and teachers to safeguard education quality to ensure that future generations adequately prepare for the labour market (Hill, 1995). For this reason, experts in education in general and the quality of education, in particular, have been trying to improve the teaching and learning process at various levels and grades and in different curricular areas (Langstrand, Cronemyr, & Poksinska, 2015). In this sense, teachers must arouse curiosity in students, helping them learn that what seems complicated is not always difficult. However, unfortunately, the most ingrained teaching methods are not always those that most attract the student (Lee & Hammer, 2011). English as a second/foreign language (ESL/EFL) teaching and learning share a familiar territory of interests, mainly associated with successful results and educational outcomes. Success, which may be represented under the very shape of good marks and adequate knowledge acquisition, is utterly dependent on motivation. This attitude-related aspect is the key to teaching and learning successfully and effectively (Gardner, 2014; Mary, 2001; Ushida, 2005). Indeed, "[m]otivation is a key aspect of second language learning" (Lasagabaster et al., 2014, p. 1).

Considering the stated problem and its consequent importance, both in academic terms and for society in general, this article aims to measure the initial motivation of higher education students to study L2. The results of this research may contribute to educational researchers understanding the students' motivational status and, accordingly, implementing strategies to engage students in learning these areas of knowledge, namely English as a second/foreign language.

Literature Review

Motivation in ESL/EFL Learning

The success of a second or foreign language learning depends on various factors. These include age, supportive contexts, opportunities to practise, the quality of formal instruction and, of course, motivation (Pinter, 2011; Özütürk & Hürsen, 2014; García-Sampedro & Prado, 2020). We could also add several other factors besides motivation that contribute to the success of learning a second/foreign language: an early start in an optimal environment, opportunities to practise, explicit instruction and rich exposure (Pinter, 2011). However, there are a considerable and relevant number of theories of L2 acquisition that have contemplated the significance of motivation (Fernández & Cañado, 2001; Madrid, 2002). Indeed, motivation and related attitudinal aspects significantly impact students' second/foreign language learning (Harmer, 2007; Lai, 2013). Thus, according to the literature, positive attitudes and motivation are essential not only for children (young learners) (Heining-Boynton & Haitema, 2007; Nikolov, 1999) but it is also relevant within the context of EFL learning by university students (Özütürk & Hürsen, 2014). Several motivational theories contribute to comprehending this matter better (Madrid, 2002). Motivation has been studied as a complex idea, integrating additional elements (Madrid, 2002) and comprehending several theories. Among these is the very recent Directed Motivational Currents Theory by Dörnyei (Dörnyei et al., 2014; Lasagabaster et al., 2014). In detail, regarding this theory, its authors describe a DMC "[...] as a strong, motivational drive capable of stimulating and supporting long-term behaviour, such as learning a foreign/second language [...]" (Dörnyei et al., 2014, p. 9). Being strong "[...] pathway which occurs when a variety of time and context-related factors come together in an individual to prompt a firm decision to pursue a goal/vision which is considered personally significant [...]" (Dörnyei et al., 2014, p. 27). A DMC is therefore considered a reliable motivational tool in the classroom (Dörnyei et al., 2014), which should be highlighted when studying motivation in EFL/ESL.

Such theory results from several other motivational thinking-related theories, namely the L2 Motivational Self System (Dörnyei et al., 2014), Dynamic Systems Theory and the Future Time Perspective (Lasagabaster et al., 2014). Jeremy Harmer also defines Motivation in his book *The Practice of English Language Teaching* (Harmer, 2007), the author defines it as "[...] some kind of internal drive which pushes someone to do things in order to achieve something" (Harmer, 2007, p. 51). The author also refers to the very extrinsic and intrinsic motivation, referring to the former as something that corresponds to external goals or compensations and the latter to aspects closer to an individu-

al's feelings (Harmer, 2007). Harmer, however, highlights that most studies have concluded that intrinsic motivation is critical in the learning process (Harmer, 2007). The author states that if the learning motivation is mainly extrinsic, success will be harder to attain without intrinsic motivation (Harmer, 2007). Indeed, such intrinsic motivation enhancement appears to be utterly relevant when it comes to language learning (Williams & Burden, 1997).

Thus, there are several motivation-related theories and motivation, whether intrinsic or extrinsic, is considered to play an essential role in students' performance within the context of ESL/EFL. Therefore, this article presents the motivation dimensions in the following section, which is essential to address this article's focus.

Motivation Dimensions

Motivation is a theoretical construct used to explain the direction, intensity, persistence, and quality of particular human behaviour (Maehr & Meyer, 1997), presenting itself in the literature as a variable in both magnitude and orientation. Motivation may also be defined as a conceptual construction that explains the individual's thoughts and behaviour (Dornyei, 2001). Whether the effects of performance outcomes are intrinsic or extrinsic, motivation is a mediating variable that explains various behaviour types in various contexts and environments (Maehr & Meyer, 1997). For example, motivation is considered a key determinant of learning in education and explains the attention and effort students devote to the activities they are engaged in (Brophy, 2013). In this context, it is up to the teacher to manage the students' motivation, increasing its levels to generate positive results in the learning process (Harlen & Deakin Crick, 2003). Nonetheless, keeping motivation levels high is not only dependent on the teacher. The students, intrinsically, may also increase their motivation towards learning by using self-regulatory strategies that will make them successful in their learning, such as establishing goals, controlling their behaviour so they can pay more attention in classes, dealing with distracting factors, only to name a few (Dembo & Seli, 2016).

There is some controversy about the impact of different motivation types on learning, discussing which type of motivation (intrinsic or extrinsic) allows for better learning rates (Ryan & Deci, 2000b). In this sense, it is fundamental to promote the student's desire to carry out a learning activity for the simple pleasure experienced in it and for the usefulness and perceived satisfaction derived from its motivational aspect (Vallerand et al., 1992). In order to more fully understand human behaviour, Deci and Ryan (1985) proposed the concept of Amotivation (AMOT), which is interrelated with the conditions of despondency, indifference, disinterest, and a lack of self-belief, exhaustion or depression

(Balkis, 2018). AMOT reflects a lack of interest in self-fulfilment or a generalised lack of willingness to engage in a specific task. As a result, students do not feel empowered or involved in attaining their respective objectives (Ryan and Deci, 2000b). Therefore, this condition identifies a state in which there is a lack of expectations regarding actions and their consequences (Barkoukis et al., 2008; Cheon et al., 2016) to the extent that the subject displays a lack of interest in dealing with a task as there is a lack of belief that the outcome shall be that sought after, whether stemming from ineptitude and incompetence (Cheon et al., 2016). According to Deci and Ryan (1985), this dimension arose from failure's regularity. It sustains negative feedback that makes individuals assume that a particular result is unattainable; however, regardless of how much they wish to achieve it (Dembo & Seli, 2016; Cheon et al., 2016).

Extrinsic motivation (EMOT) interrelates with the level of individual participation in a particular task not out of their own will but rather due to external motives (Reiss, 2012), for rewards, or advantages interrelated with their performance, competition against third parties, with learning a means to attain a specific and previously defined goal or objective (Deci & Ryan, 2000; Tokan & Imakulata, 2019). EMOT contains the four different SDT Continuum levels following rising levels of SDT (Deci & Ryan, 1985; Deci, Koestner, & Ryan, 2001). EMOT has three levels of increasing self-determination, which are external regulation (EMER), regulation by introjection (EMIN), and regulation by identification (EMID) (Deci & Ryan, 1985; Deci et al., 2001). However, EMER is the one that best characterises the EMOT. The individual performs a specific task because external motivation moves him to avoid punishment or achieve a particular reward, acting by external pressures that do not consider his interests, desires, and goals. This is the most diminutive autonomous form of motivation, regulated by external contingencies such as teachers' and peers' incentives in the learning process (Ryan & Deci, 2000a). In EMIN, there is already a certain degree of internalisation of motives, but the person still acts more out of obligation or pressure than out of their own will. For example, students may behave in a certain way because they feel pressured by others rather than their choices and desires (Ryan & Deci, 2000a). In EMID, the person already identifies with the value of the activity to be performed, accepting the importance of specific actions, with a certain autonomy in decisions. Applying this extrinsic motivation typology can be verified when students identify with a specific school activity, accepting it voluntarily by regulating their behaviour to perform it (Deci et al., 2001). Intrinsic motivation (IMOT) measures the level of individual participation in a task that stems from internal reasons, being oneself, curiosity, the will to live and overcoming a particular challenge (Orsini et al., 2016), in summary, the extent to which participating in a task represents an end in itself and intrinsically related to the level of individual willingness (Pintrich, 2003). IMOT is subdivided into three unordered subdi-

mensions: intrinsic motivation for knowing/knowledge—to know—(IMTK), which assesses the desire to perform a particular activity for the pleasure and satisfaction experienced during learning; intrinsic motivation for achievement—to accomplish—(IMTA) which assesses the desire to perform an activity for the pleasure and satisfaction in accomplishing or creating something and intrinsic motivation to experience stimulation—to stimulate—(IMTS) which measures the desire to perform an activity that stimulates the individual who engages in it (Deci & Ryan, 2008). SDT, applied to teach, focuses more on whether students' motivation is more autonomous or controlled, predicting outcomes related to student's studies in the learning context, thus covering more the meaning, relevance, and persistence they give to the learning process rather than the total amount of motivation they experience (Vansteenkiste, 2006; Lens, & Deci, 2006). The different types of motivation resulting from SDT have been used in several studies and at different educational levels with positive results where experience, the relevance of learning and intention to complete the course have been evidenced. Conversely, other studies have revealed negative results of motivation where the main aspects include the intention to abandon the studies (Hardre & Reeve, 2003) and effective abandonment (Vallerand, 1997). Given the robustness evidenced over time in the literature, one of the most widely used SDT-based instruments for measuring student motivation is the Academic Motivation Scale (AMS), designed by Vallerand et al. (1989).

Research Gap and Model Proposed

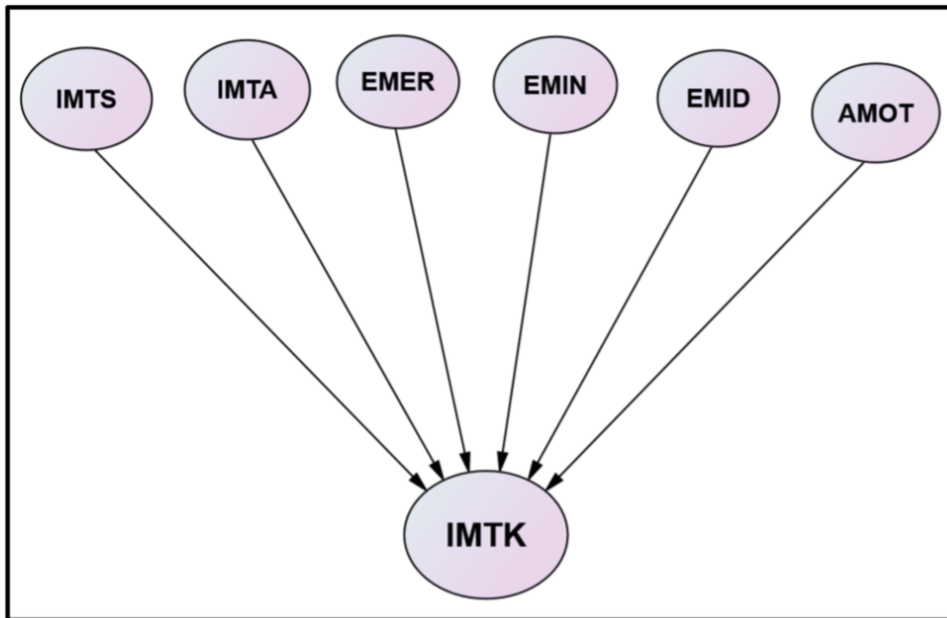
To study students' motivation levels, we based our research model on the three central dimensions of motivation (AMOT, IMOT and EMOT). Based on previous literature, Academic Motivation Scale (Vallerand et al., 1989) and Ryan and Deci's Self-Determination Theory (Ryan & Deci, 2000b), we defined the research hypotheses presented in Figure 1:

– H1: Intrinsic Motivation to Stimulate (IMTS) has a positive influence on Intrinsic Motivation to Know (IMTK);
– H2: Intrinsic Motivation to Accomplish (IMTA) has a positive influence on Intrinsic Motivation to Know (IMTK);
– H3: Extrinsic Motivation External Regulation (EMER) has a positive influence on Intrinsic Motivation to Know (IMTK);
– H4: Extrinsic Motivation Introjected Regulation (EMIN) has a positive influence on Intrinsic Motivation to Know (IMTK);
– H5: Intrinsic Motivation Identified Regulation (EMID) has a positive influence on Intrinsic Motivation to Know (IMTK);

– H6: Amotivation (AMOT) has a negative influence on Intrinsic Motivation to Know (IMTK).

Figure 1

Research Model (Authors's Own Work)



Materials and Methods

Participants

The participants were Portuguese students between 17 and 47 years old, average age of 21,32 years, 48% male and 52% female. These students had, in general, previous English language learning experiences from secondary school. Therefore, 145 questionnaires were collected from students studying English in Portuguese higher education institutions, namely the Polytechnic Institute of Porto and the Polytechnic Institute of Bragança.

Empirical Study and Statistical Analyses—Confirmatory Factorial Analysis

In this case study, we used a quantitative methodology. A questionnaire survey that applied the Academic Motivation Scale (AMS) by Vallerand et al. (1989) was given to students studying English as a second language in higher education. The original questionnaire had the following general starting question: “Why do you go to college?” It has been translated and adapted to “Why would I spend my time studying English?” The 28 items of the scale were translated and adjusted to be used by students who studied English. The scale’s adaptation did not require many changes and adapted to the desired context, using almost equal affirmations in practically all the questions. The original AMS 7-point Likert scale, which varies from “Not fully corresponds to” and “Matched in full,” was maintained and all variables belonging to AMOT, EMOT and IMOT. The data analysis method was based on estimating two structural models, one with dimension and factorial loading results and the other with factorial loadings above 0.5. Confirmatory Factor Analysis (CFA) was used, estimating two structural models with dependent variable IMTK using structural equations in AMOS 27 software.

To check whether the measurement model was statistically valid and significant, we analysed the measurement model’s loadings and errors that characterise this study (Sarstedt et al., 2014, Hair et al., 2010). The proposed model’s estimation was performed using the structural equation model (SEM) and SPSS/AMOS 27 software. The final model tested returned the following statistical findings ($\chi^2 = 619.032$, $p = 0.001$, df = 215, $\chi^2/df = 2.879$, RMSEA = 0.069, SRMR = 0.109, NFI = 0.901, GFI = 0.918, AGFI = 0.910 and CFI = 0.949), displaying a good level of suitability across practically all evaluation indicators (Hair et al., (2010). As regards the convergent validity of the model (Table 1), we evaluated further three metrics: Average Variance Extracted (AVE), Composite Reliability (CR) and Cronbach’s Alpha (α). According to the literature (Taber, 2018), we estimated a model composed of six dimensions named Intrinsic Motivation to Stimulate (IMTS), Intrinsic Motivation to Accomplish (IMTA), Extrinsic Motivation External Regulation (EMER), Extrinsic Motivation Introjected Regulation (EMIN), Intrinsic Motivation Identified Regulation (EMID and Amotivation (AMOT). To confirm the constructs’ reliability, we calculated Cronbach’s Alpha (α) that there is an excellent total internal consistency (α = 0.935) for the sample of 145 respondents. The internal consistency for all items that make up the model is demonstrated by Cronbach’s Alpha (α) higher than 0.8, revealing validity and internal and explanatory reliability. Cronbach’s Alpha (α) is a widely used statistical technique cited by several authors to demonstrate that the tests and scales built or adopted are relevant in explaining the investigation results (Hardre & Reeve, 2003). It should be noted that the values of Composite Reliability (CR), Average Variance Extracted (AVE), and

Cronbach's Alpha (α) presented were obtained after the removal of items with a factorial load below 0.5. The remotion of these items allowed a substantial increase in all the robustness measures presented in Table 1.

Table 1

Validity and Reliability of Constructs

Constructs	Items	Loadings	Composite Reliability	Average Variance Extracted	Cronbach Alpha
IMTS	IMTS1	0.841	0.963	0.728	0.896
	IMTS2	0.820			
	IMTS3	0.854			
	IMTS4	0.798			
IMTA	IMTA1	0.820	0.864	0.616	0.857
	IMTA2	0.839			
	IMTA3	0.637			
	IMTA4	0.827			
EMER	EMER1	0.386	0.819	**0.323**	0.799
	EMER2	0.568			
	EMER3	0.907			
	EMER4	0.925			
EMIN	EMIN1	0.769	0.904	0.706	0.925
	EMIN2	0.727			
	EMIN3	0.919			
	EMIN4	0.928			
EMID	EMID1	0.786	0.931	0.822	0.909
	EMID2	0.721			
	EMID3	0.893			
	EMID4	0.714			
AMOT	AMOT2	0.996	0.843	0.653	0.809
	AMOT3	0.585			
	AMOT4	0.791			

Constructs	Items	Loadings	Composite Reliability	Average Variance Extracted	Cronbach Alpha
IMTK	IMTK1	0.953	0.926	0.762	0.922
	IMTK2	0.950			
	IMTK3	0.894			
	IMTK4	0.662			

AMOT=Amotivation, **EMER=**Extrinsic Motivation External Regulation, **EMIN=**Extrinsic Motivation Introjection, **EMID=**Extrinsic Motivation Identification, **IMTS=**Intrinsic Motivation to Stimulate, **IMTA=**Intrinsic Motivation to Accomplish, **IMTK=**Intrinsic Motivation to Know

* Dimension EMER was removed because AVE results were lower than 0.5

To perform the CFA, two models were tested, one with all the variables corresponding to the six dimensions under analysis (Model 1) and another removing dimension and respectively variables whose factor loadings were lower than 0.5 (Model 2) (Leguina, 2015). Table 2 shows the results of the two models tested, with Model 1 presenting a modest adjustment, which was improved by removing the dimension EMER.

Table 2

Quality Models Indices

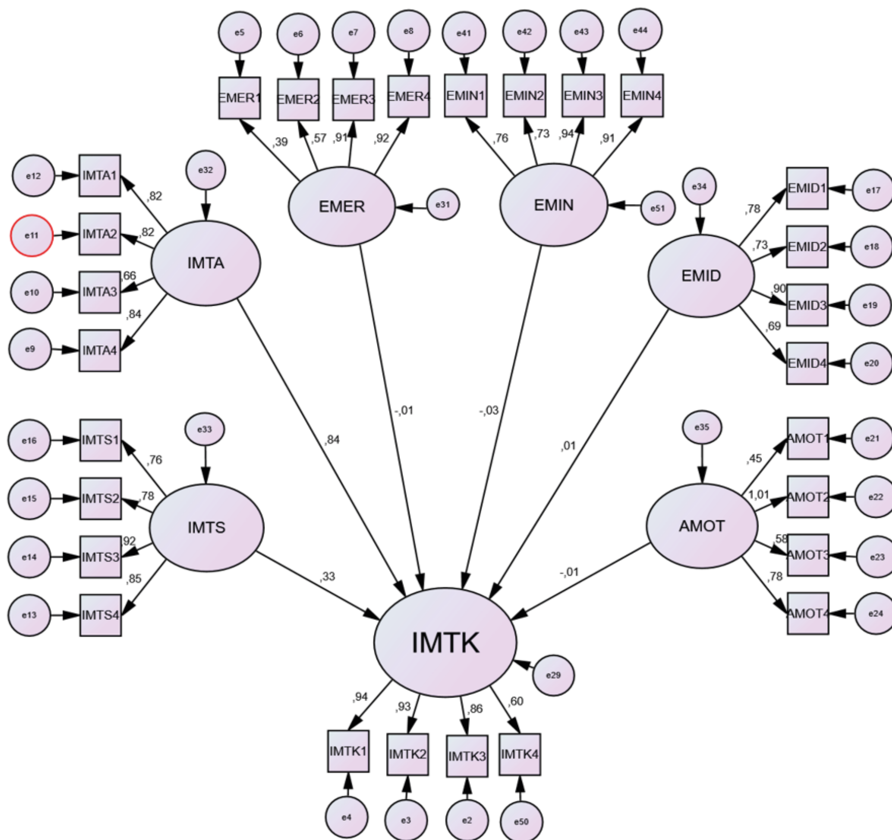
Adjustment indices	Model 1 7 Constructs / 28 variables	Model 2 6 Constructs / 24 variables
χ^2 Satorra Bentler	1156.505	619.032
Df	344	215
p-value	$p < 0.001$	$p < 0.001$
$\frac{\chi^2}{df}$ Satorra Bentler	3.362	2.879
RMSEA	0.115	0.069
SRMR	0.225	0.109
NFI	0.685	0.901
GFI	0.709	0.918
AGFI	0.740	0.910
CFI	0.751	0.949

Results

The Final Research Model is presented in Figure 2. One can see the standardised path coefficients in which the model's IMOT dimensions (IMTA and IMTS) were significant ($p < 0.001$) with an impact on the dependent variable IMTK. The final research model allowed us to validate that IMTS ($\beta = 0.332$; $p < 0.05$) and IMTA ($\beta = 0.839$; $p < 0.001$) influence the IMTK of students who study a second language, namely English, in a higher education context. We also tested if EMOT dimensions like EMER, EMIN and EMID influence IMTK, but our results reveal non-statistical significance ($p > 0.05$). After analysing the hypotheses tested in the measurement model, we found that only H1 and H2a were validated. The hypotheses H3, H4, H5 and H6 formulated were not validated in the final model.

Figure 2

Research Model (Authors's Own Work)



In Table 3, we may observe the summary of the hypotheses tested following the best research model for each analysis stage and the results obtained that conclude the variation that occurred in IMTK. The structural results point to the dimensions of IMTS and IMTA as holding direct statistically significant influences over the IMTK of students. The dimensions of EMER, EMIN, EMID and AMOT have no statistically significant influence over the IMTK of students. Our results validated the formulated research hypotheses H1 and H2. H3, H4, H5, and H6 had no statistical significance ($p > 0.05$).

Table 3

Research Hypotheses and Statistical Results

Hypotheses	Relationship	Regression Coefficients	Standard Error	t	*p*-value	Result
H1	IMTS→ IMTK	.332	.041	6.173	<0.001	Supported
H2	IMTA→ IMTK	.839	.073	3.197	<0.001	Supported
H3	EMER→ IMTK	–.001	.085	–.259	>0.05	Not Supported
H4	EMIN→ IMTK	–.028	.012	–.570	>0.05	Not Supported
H5	EMID→ IMTK	.011	.076	.208	>0.05	Not Supported
H6	AMOT→ IMTK	–.011	.100	–.236	>0.05	Not Supported

Discussion

According to the literature, students' motivations can vary between amotivation, intrinsic and extrinsic motivation. In this sense, learners can experience motivation according to Self-Determination Theory (Ryan & Deci, 2000b), which is assumed to be one of the primary theoretical references addressing this critical subject. Motivation can manifest itself at various levels and intensities that affect student behaviour, involving not only the student themselves (intrinsic motivation) but also the education system as a whole, the family, and the surrounding social environment, among other personal, intrapersonal, interpersonal, contextual and situational elements (extrinsic motivation) (Vallerand & Blssonnette, 1992). Motivation is closely related and linked to student learning (Chiu & Chow, 2010; Gonzalez' & Paoloni, 2015; Yen et al., 2011) and has been scientifically evaluated by several authors due to the importance of the consequences it can cause in the learning process (Deci & Ryan, 2000). The motivation to learn a second language depends on several factors and social

contexts. According to the literature, it is greatly influenced by the way courses are delivered ("explicit instruction") (Pinter, 2011), the quality of instruction and the attitudes it elicits in students (Heining-Boynton & Haitema, 2007; Nikolov, 1999). However, according to the results obtained from our study, the students' motivation levels who participated in this study were influenced primarily by personal motivation, which is relevant to their identity and emotional satisfaction (Dörnyei et al., 2014), thus supporting the studies that highlight the importance of intrinsic motivation. The student's behaviour and attitude are also central to increasing their motivation to learn the second language (Lasagabaster et al., 2014). In the present study, students notably revealed the individual ability to self-motivate, corroborating studies on the power of personal motivation rather than external motivation. On the other hand, the fact that extrinsic motivation was not relevant in our study shows that students learning a second language develop a certain mentality that allows them to reduce levels of amotivation and increase levels of intrinsic motivation obtained through teaching methods that employ different approaches in the teaching-learning process (Balkis, 2018). In other studies, however, extrinsic motivation surpasses intrinsic motivation regarding EFL students, possibly due to specific external reasons such as job-related purposes (Khazaie & Mesbah, 2014; Nuraeni, 2020). These referred external reasons do not seem to have significantly impacted the surveyed students, which again may explain the higher levels of intrinsic motivation.

It should also be considered that this study collected the very opinions of students during the academic year of 2020/2021, whose pandemic affected the teaching institutions and overall classes. EFL was indeed no different. Accordingly, the results obtained by this study may have been influenced by such extraordinary teaching and learning context, characterised by its remote reality. Hence, because students could not contact a more direct or face-to-face teaching/learning context (where praise and closer guidance from the teacher, for example, would probably be more present), the teaching methodologies were different and as diverse as the remote reality allow. Again, this aspect alone can explain that these students did not seem to be clearly or highly motivated extrinsically, where methodologies and didactic approaches could have created a more significant impact.

On the other hand, this situation may also explain this study's results regarding students' seeming more intrinsically motivated, which may result from their inner movement and focus on their motivation. Furthermore, job perspectives and other external factors may not have significantly impacted the surveyed students in this study. The pandemic context, as experimented, may have redirected the students into some other objectives, consequently more focused on internal aspects such as self-accomplishment, for example, rather than job perspectives.

Additionally, one can conclude that the teaching methodologies within a remote teaching and learning context were not sufficiently attractive so that students would feel more extrinsically motivated. Furthermore, we consider it essential to study such aspects regarding the possible didactic methodologies that may motivate the EFL/ESL students, whether in a more remote context or a face-to-face one.

More precisely, more studies should be conducted to evaluate the latest results regarding students' motivation to learn English as a foreign language in a distant context. For example, although Jiang et al. (2023) conclude that EFL students' motivation may increase within the online context, and Arrosagaray et al. (2022) point out a higher extrinsic motivation within a distance learning context, it is also recommended further studies as the dominant type of motivation may change (Arrosagaray et al., 2022). Moreover, Ozer and Badem (2022) consider cross-cultural studies critical to highlight language learners' motivation in blended and distance learning contexts (Ozer & Badem, 2022).

Conclusion

Our study aimed to measure higher education students' motivation to learn a language other than their own, that is, a second/foreign language. It is universally accepted that academic motivation is fundamental to learning, whether intrinsic or extrinsic. Our study measured students' amotivation, intrinsic motivation and extrinsic motivations. We found that only intrinsic motivation proved to influence these students' learning process, which consists of an exciting conclusion due to the importance of other external factors, as pointed out by other previously referred authors. Amotivation and extrinsic motivation were not statistically significant, which showed that only intrinsic motivation assumed a possible influence on intrinsic motivation to know English as a second/foreign language in the higher education context. Furthermore, we found that students' general state of motivation was relatively preponderant on the level of personal motivation rather than external motivation. Using the Academic Motivation Scale and the Self-Determination Theory allowed us to assess which motivation levels have a relevant influence on the learning process of these students.

This study contributes to the literature regarding the second/foreign language learning process in higher education contexts, allowing us to understand which dimensions affect students' behaviour, attitude and motivation. Higher education institutions should take advantage of these results to adopt methodologies capable of promoting and increasing students' motivation. The fact that the

enquired students were only intrinsically motivated shows that external factors such as teachers, teaching tools, classroom conditions, classmates, friends, family members, and job perspectives, among many other extrinsic factors, do not motivate them. Therefore, higher education institutions should interpret these results as an opportunity to continuously improve their teaching processes to provide a quality academic service to help students have a professional future with more positive and ambitious prospects in the labour market.

We started our study with a question, also titled the present article. Our answer to it, based on the results obtained and the reflections they allow us to make regarding this specific issue, is that it is difficult to provide a self-assuring and permanent answer regarding each learner's approach to their learning. However, the study results made us realise the importance of continuously innovating in language learning motivation in higher education, be it with more effective and innovative methodologies, matching the current challenges of online learning and digital technology-based learning resources, or paying more attention to the individual needs and particularities of learners.

To sum up, we conclude that regardless of the studies and analysis of some authors who consider motivation to be highly dependent on extrinsic factors, such as how courses are delivered, among other previously referred aspects (Pinter, 2011), our study, however, concludes that the Portuguese university students who study English and who answered our questionnaire consider their motivation to be more intrinsic. This conclusion highlights the reality regarding students' motivation to study English as a second/foreign language. Furthermore, it highlights how important it may be for teachers and teaching institutions to invest in their courses and teaching/learning contents and didactic methodologies to improve students' motivation and academic results so that extrinsic motivation can increase and succeed.

Also, there should be more studies that could include more university students learning English as a second/foreign language to understand and evaluate whether intrinsic motivation is a dominating reality. Finally, we want to add that the present study has some limitations, namely that it does not cover a significant number of university students learning English from different courses resulting in a particular limitation to work in terms of extrapolation of results.

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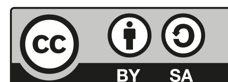

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The Nexus between Social Factors, Basic Psychological Needs and Task-value of Tertiary EFL Learners: A Bangladeshi Perspective

Abstract

This paper aims to explore the impacts of social factors and basic psychological needs of tertiary EFL learners on their task-value to learn English. Though ample studies have investigated EFL learners' socio-economic status and basic psychological needs, there is a dearth of studies of their effects on their task value in English as a Foreign Language learning. Hence, this study has employed a quantitative research design with a questionnaire to collect data from 110 EFL tertiary learners of Dhaka, Bangladesh. A correlation using SPSS and path and mediation analyses using IBM SPSS AMOS were conducted to analyze the data. The results revealed a positive and significant correlation of learners' task value with their social factor—school location and two basic psychological needs (BPN): factors-competence and relatedness. Fathers' education among social factors and autonomy among BPN factors had the largest effects on task value. School location significantly influenced learners' autonomy and competence. Both autonomy and competence in turn significantly and positively affected learners' task value. Autonomy and competence also mediated in the relationship between learners' school location and task value in the EFL context. In addition to adding new insights to the existing EFL achievement motivation literature, the paper also discusses the pedagogical implications of the findings.

Keywords: EFL, autonomy, competence, relatedness, task-value, social factors

Learning a second/foreign language is a complex process involving a number of factors and circumstances. Research findings suggest that the success of every learner varies due to various factors that influence the process of internalization of L2 (Khasinah, 2014). Among the most influential individual factors, such as: age, aptitude, intelligence, cognitive style, attitude, motivation,

and personality, there are the ones that are believed to be crucial in learning L2 (Ellis, 1985; Khasinah, 2014). Out of all these aspects, motivation emerged to be one of the most important factors in affecting SLA (Khasinah, 2014; Raoofi & Maroofi, 2017). Motivation is also found to be a determining contributor to language achievement (Adwani & Shrivastava, 2017). Among different motivational components, task value plays a pivotal role in learners' motivation to engage in a learning activity, persist in it and perform it. When learners value a learning activity with positive expectations from it, they become highly motivated to perform the task (Raoofi, 2019). In learning a language successfully and performing in it, task value is crucial (Raoofi & Maroofi, 2017).

According to the proponents of expectancy-value theory, learners' own perception of ability, the difficulty of the task, the expectation of other people etc. are notable factors that influence their task value. Another reason for choosing a task is the intrinsic value based on the inherent enjoyment that the learners get in accomplishing a task. This concept of intrinsic value is analogous to the notion of higher-level self-determination, namely intrinsic motivation in the self-determination theory (Eccles & Wigfield, 2002). Apart from a motivational continuum, self-determination theory also posits that learners' task value increases when they feel that the task is self-endorsed and they are competent to perform it. Therefore, cognitive components like learners' beliefs in their own competence and autonomy influence their motivation to perform a task.

Since motivation is claimed to be more complex than related to only the learner's personality or individual differences, the social setting or the dimension of social factors has been brought to the foreground by various researchers (Ahmad, 2014; Choubsaz & Choubsaz, 2014; Deci & Ryan, 2015; Gardner, 1985). Proponents of self-determination theory (SDT) maintain that satisfaction of three basic psychological needs (BPN), namely autonomy, competence, and relatedness is vital to sustaining learners' intrinsic interest in performing an activity (Deci & Ryan, 2015). Therefore, external factors that play a role in fulfilling or thwarting the BPN factors may cause better or poorer engagement in a learning activity (Niemiec & Ryan, 2009). This theory highlights the complex interplay between learning environments, BPN factors and people's interest and value in doing a task. Satisfaction of learners' BPN factors enhances their intrinsic interest in performing an activity (Deci et al., 1999) and this intrinsic interest is a core component of learners' task value. Very little research work has been done to explore the probable relationship between social factors, BPN factors and individual learner motivation in EFL contexts (Alamer & Lee, 2019; Alamer, 2021).

In this regard, in Bangladesh, various contextual factors like education policy, teacher training, logistic support, socio-economic factors, and English practice in institutions have been investigated (Hamid & Erling, 2016; Shurovi et al., 2020; Rahman et al., 2019) along with many individual learner factors like

motivation and learning strategy use (Quadir, 2008; Rahman, 2005). However, among the notable factors behind unsuccessful EFL context, the learners' lack of enthusiasm in participating in classroom activities (Nuby et al., 2019) deserves more attention because student motivation and engagement are among the most critical predictors of their learning success (Yu et al., 2019). Another study also reports a lack of motivation of tertiary learners to actively participate in activities in English classes (Afrin, 2016).

In this regard, learners' task value needs to be explored because high task value motivates the learners to accomplish tasks to facilitate their English learning. Particularly, individual perception of basic psychological needs (BPN) and task value remained unexplored in the Bangladeshi context, whereas research has revealed the crucial role of task value in influencing English achievement significantly (Chou, 2021). So, a study of learners' task value in relation to their social factors and BPN could reveal significant dimensions of the social-psychological factors which are crucial to success in Foreign Language Acquisition (FLA).

Literature Review

Basic Psychological Needs

In the field of human psychology, the proponents of self-determination theory (SDT) discussed the basic psychological needs (BPN) of humans that influence task engagement. Self-determination theory asserts that humans feel motivated when they function naturally; however, there are some socio-psychological conditions that augment or thwart their natural motivational spirit (Ryan & Deci, 2000). Empirical researchers have claimed that people's self-motivation increases if they feel competent to do something; if they want to identify or relate themselves with others that they feel close to and if they automatically endorse the task at hand with self-volition (Takahashi & Im, 2020). In that regard, human basic psychological needs are divided into three types, namely autonomy, competence, and relatedness which, in a supportive learning environment, have been reported to be related to higher task involvement and learning outcomes (Niemiec & Ryan, 2009).

The need for autonomy refers to the feeling of self-endorsement and ownership of one's own actions (Ariani, 2019; Wang et al., 2019). Learners' self-chosen decision-making in learning activities has been found to significantly predict their self-determination (Ariani, 2019). The need for competence is the belief in one's ability to perform a task with an expected outcome in a congen-

ial learning atmosphere (Deci & Ryan, 2000). It refers to the urge to experience mastery in carrying out learning tasks and interacting with the atmosphere to achieve the desired outcome (Ariani, 2019; Wang et al., 2019). Ability or competence beliefs are likely to influence the task value of learners as learners with higher competence beliefs are supposed to be interested in tasks that are more challenging (Eccles & Wigfield, 2002). Lastly, the need for relatedness involves the human desire to feel connected, accepted, and respected by others who interact in the same environments (Baumeister & Leary, 1995). Research findings suggest that learners whose autonomy, competence, and relatedness are supported in the classroom value their learning activities highly, enjoy completing tasks and are more eager to accomplish tasks that they find less interesting (Niemiec & Ryan, 2009).

Research on basic psychological needs (BPN) of EFL/ESL learners report that learners' autonomy, competence, and self-determination have been found to impact their learning effort (Leptokaridou et al., 2015) and goal orientation (Alamer & Lee, 2019). Therefore, the fulfilment of learners' BPN factors may enhance their learning goals and efforts. Other research revealed autonomy as the highest predictor of self-determination in learning L2 among Japanese and Swiss-German learners (Noels, 2013); autonomy as significantly influencing their learning achievement (Afshar et al., 2014); the fulfilment of these needs as leading to more autonomous self-regulated learning and performance (Niemiec & Ryan, 2009); the reciprocal relationship of the basic three psychological needs of language learners and their negative relation with academic pressure (Davis, 2022; Wang et al., 2019); competence and autonomy as directly influencing academic engagement (Ariani, 2019). Hence, literature on three basic psychological needs exhibits a wide array of research conducted on them in various contexts with motivational constructs in academia. However, research on how socio-economic factors of learners may affect learners' BPN and their probable roles in influencing the task value of L2 learners is scant (Broeck et al., 2016; Chen et al., 2015).

Task Value

Task value refers to the causes why learners decide to accomplish a task which may generate intrinsic interest to engage in a task or certain utility of instrumental purpose for them (Bai et al., 2020). The theory of task value in education was elaborated by Eccles et al. (1983) where they included four components: attainment value, intrinsic value, utility value, and cost. Attainment value refers to the level of importance the learner attaches to a task. Intrinsic value involves the enjoyment the learner derives from accomplishing the task and utility value refers to a current or future contingent

for doing a task that is related to their goal of learning. Utility value pertains to their extrinsic reasons for learning along with internalized goals. A combination of interest and utility has been referred to as task motivation (Viljaranta, 2010). Lastly, the cost is the probable anxiety or fear that the learner may feel while doing a task (Eccles & Wigfield, 2002). Task value plays a crucial role in the learners' engagement in a task (Pintrich et al., 1991) which eventually influences their learning motivation (Miller & Brickman, 2004) and outcome (Liem et al., 2008).

Literature suggests that learners with higher interest and enjoyment in and utility of the tasks tend to engage in more learning tasks and achieve better academic results (Wigfield & Eccles, 2000). Unlike the Western culture where enjoyment in learning is highly valued, Asian educational culture encourages learners to be hard working to achieve high in an academic context; as a result, the utility of accomplishing learning tasks is at the core of their learning psychology (Lo & Hyland, 2007; Wang et al., 2019). As task value has been reported to be a significant motivational construct in achievement in English at the tertiary level (Chou, 2021), a construct of achievement motivation that influences learners' accomplishment, effort, and determination (Wigfield & Eccles, 2000), more research are warranted on it in EFL context.

Studies on task value reported high achievement in EFL writing by learners with higher task value (Bai et al., 2020); a positive relationship between task value and the effort invested by learners (Dietrich et al., 2017); a significant relationship between task value and employment of writing strategies (Raoofi & Maroofi, 2017); a significant relationship between task value and self-efficacy (Shen et al., 2020) and the association of task value with planning and evaluation of listening practice (Xu et al., 2022). The literature shows that task value influences achievement in EFL significantly; however, there is a dearth of studies on social and psychological factors that may affect the task values of EFL learners (Brown & Putwain, 2021).

Socio-economic Status

Language learning does not take place in a vacuum. The social atmosphere where students live and interact with others has impact on the learning process (Chou, 2021). Buttle (1989) contends that BPN is developed in a socio-cultural context through social processes. Individual learner's need satisfaction is formed by social-cultural factors (Deci & Ryan, 2012). Studies revealed that learners with higher socio-economic status (SES) reported higher autonomy-related self than their rural counterparts (Kagitcibasi & Ataca, 2005). Unlike Deci and Ryan (2000) who discussed BPN as innate psychological constructs, Kagitcibasi (2005) contends that instead of being inborn exigencies, BPN are

the outcome of the parent-child connection. Froiland and Worrell (2017) reported that parental support of autonomy heightened the academic performance of high school learners in San Francisco. The study by Youssef (2018) observed that the learners with higher SES scored higher in BPN. Likewise, Stringam (2022) observed higher autonomy, competence, and relatedness among urban learners in comparison with rural learners. These studies corroborate the view that SES-related factors significantly influence learners' BPN in SLA/FLA.

Other studies explored the probable relationship between SES and learning effort (Arratibel & Bueno-Alastuey, 2015); impacts of SES on ESL (Akram et al., 2021; Nimmala et al., 2016); effects of SES factors on learner motivation (Ahmad, 2014); the relationship between SES and writing anxiety (Shurovi et al., 2022); role of SES on Iranian learners' performance in reading and listening (Abbasian et al., 2020); association of SES with learners' learning style (Huseynpur et al., 2015); impacts of SES on FLA (Suliman, 2014). The study of Chou (2021) investigated the relationship between SES and task value along with learning strategies employed by the learners. However, these studies did not explore the relationship of SES with BPN and task value together. As Baltenau (2016) claims that SES has been largely under-investigated in SLA and since previous researchers reported a positive relationship between SES and BPN plus BPN and task value, a study combining all these factors would offer comprehensive insights into their interplay in the EFL context.

Method

Research Design

Research design refers to the process of collection, analysis, and interpretation of data following quantitative or qualitative methods (Creswell, 2012). The current study aims to empirically observe the relationship between variables and the impacts of independent variables, namely the SES and BPN factors on the dependent variable, that is, task value of learners and report the findings objectively. Therefore, this study employs a quantitative correlational research design.

Research Questions

This study explores how four social factors, namely learners' father's education, mother's education, school location, and monthly earnings, mediated by

three basic psychological needs, impact their task value in learning English as a foreign language. Drawing upon SDT theory for investigating the basic psychological needs and expectancy-value theory to examine task value comprising usefulness, interest and importance, the following research questions were formed:

1. Are learners' SES and basic psychological needs related to their task value?
2. What is the effect size of SES and BPN factors on their task value?
3. How do the SES factors affect learners' task value through the BPN factors?
4. Do BPN factors mediate the relationship between learners' SES and their EFL task value?

Participants

A total of 110 tertiary students from a private university in Dhaka, Bangladesh, participated in the correlational study. For a correlation, approximately, 30 participants are recommended (Creswell, 2012). This shows that the sampling was adequate. All of the students were studying English I as a compulsory subject in their first trimester. They were from the Electrical and Electronics Engineering (EEE) and Computer Science and Engineering (CSE) departments. Among the participants, 86 (78%) were males and 24 (22%) were females. They had 12 years of experience learning English in the EFL context from school to college years. While completing English courses in their first trimester of undergraduate studies, their English is equivalent to A2–B1 level. The students rarely had an opportunity to communicate with native English speakers in their day-to-day lives as English was a foreign language in Bangladeshi society. To choose the participants, a purposive sampling technique was followed. The students came from various socio-economic backgrounds that provided different social factors including parental education levels and learners' previous school locations which were needed for this study.

Instruments

A questionnaire developed in English was filled up by the participants after their written consent was secured. The questionnaire had three parts. The first part was developed to collect information on social factors pertaining to their socio-economic status. A total of four items including their fathers' and mothers' highest educational attainment, monthly income and school location were indicators of social factors of EFL learners.

The second part was designed to collect data on their BPN factors. The questionnaire items to get an overview of the participants' basic psychologi-

cal needs were adopted from Alamer et al. (2022). These 5-point Likert items ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) were chosen because they aptly addressed the factors associated with three basic psychological needs of the EFL and ESL learners. Twelve items were adopted that helped measure the students' autonomy (e.g., *I am able to freely choose the tasks to be done while learning English*; *My English teacher allows my class to choose how we approach English learning*), competence (e.g., *I am competent enough to meet the challenges and tasks posed in English learning*; *I feel a sense of accomplishment in my English classes*), and relatedness (e.g., *My English teacher is friendly and cordial with me*; *My classmates are willing to help and cooperate with me while learning the language).*

The next part of the questionnaire was adapted from the scale developed by Wigfield and Eccles (2000). A total of six items helped measure the usefulness and importance of learning English among the participants and their interest in learning English (e.g., *Some things that you learn in school help you do things better outside of class, that is, they are useful. For example, learning about plants might help you grow a garden. In general, how useful is what you learn in English?*; *Compared to most of your other activities, how important is it for you to be good at English?*; *How much do you like practicing English?*) that comprise their task value. The items were slightly modified to address their task value in learning English replacing 'Math' with 'English' in the questionnaire. Question items of the third part had a 5-point Likert scale ranging from 1 (Not at all useful) to 5 (Very useful); 1 (Not at all important) to 5 (Very important); 1 (Very boring) to 5 (Very interesting) and 1 (Not at all) to 5 (Very much) for the participants to respond. The participants voluntarily took part in the research and their responses were collected online via Google form. Prior to filling up the questionnaire, the participants were briefed regarding the research purpose and the anonymity of the participants.

The reliability of the BPN constructs was assessed by Cronbach's alpha test and the coefficient value of the BPN items was .90 which exhibits a high internal consistency. The Cronbach's alpha value of the six items of task value questions was .80 which exceeded the acceptable reliability score that should be from .60–70 (Hair et al., 2010). Confirmatory factor analysis was conducted to assess the construct validity of the data. The fitness indices of the model fit of the BPN questionnaire are GFI = .93, AGFI = .86, TLI = .96, CFI = .98, RMSEA = .07 and SRMR = .05 which indicate a good model fit for employing structural equation modelling in research in education (Browne & Cudeck, 1993). The factor loading estimates of the items ranged from 0.60 to 0.87. The model fit estimates of Task value questionnaire items yielded the following indices: GFI = .97, AGFI = .90, TLI = .95, CFI = .98, RMSEA = .08, SRMR = .03. The factor loading estimates of the items were from 0.62 to 0.73. Therefore, the above results indicate good reliability and construct validity of the four-factor measurement scale.

Data Analysis

The data was collected via a Google Form questionnaire instrument. At the data analysis stage, a frequency analysis was conducted to investigate the overall task value of the EFL learners. To answer the first research question, a correlation test on SPSS software was completed to report the relationship between SES factors, BPN factors and task value of the EFL learners. To answer the second and third research questions, a path analysis using IBM SPSS AMOS software was conducted to report the effect size and influence of the SES and BPN factors on learners' task value. The goodness of the model fit to the data was established based on the following standard indices: v2/df < 3.0, (GFI) $> .90$, (CFI) $> .90$, (TLI) $> .90$, (RMSEA) $< .06$, (SRMR) $< .08$ (Kline, 2016). Finally, to answer the fourth research question, a two-step mediation analysis was conducted to report the mediating roles of BPN factors in the relationship between social factors and the task value of EFL learners. The correlation data was interpreted based on the correlation matrix. The influence of independent variables on the dependent variable was interpreted based on the effect sizes of the variables and the path model generated using AMOS software. The causal steps approach (MacKinnon et al., 2002) was followed to conduct and interpret the results of the mediation analysis.

Results

This section includes the findings from the data analyses that comprise four major themes, namely the relationship between learners' SES, BPN factors and task value, the effect size of learners' SES and BPN factors on their task value, the impacts of learners' SES on their task value through their BPN factors and the mediation of BPN factors in the relationship between learners' SES and task-value.

Are Learners' SES and Basic Psychological Needs Related to Their Task Value?

Frequency analysis revealed that a total of 95.5% of learners reported that it was important or very important to them to be good in English; however, 63.6% of learners agreed that they found working on English tasks interesting or very interesting. A two-tailed Pearson correlation analysis was done to answer the first research question. The Bonferroni adjustment to the p-values was

adopted for controlling the Type 1 error rate. Table 1 shows the significant correlations based on the Bonferroni-adjusted alpha level (p = 0.00625).

Table 1

Correlations among Variables of Interest

	Father's Education	Mother's Education	School Location	Monthly Income	Autonomy	Compet-ence	Related-ness	Task Value
Father's Education	—							
Mother's Education	.597**	—						
School Location	.118	.129	—					
Monthly Income	.083	.158	.054	—				
Autonomy	.248**	.071	.250**	–.123	—			
Competence	.096	.067	.309**	–.101	.533**	—		
Relatedness	.090	.032	.309**	–.175	.649**	.569**	—	
Task Value	.207*	.168	.240*	–.100	.667**	.638**	.591**	—

Note. * Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table 1 shows a moderate and positive correlation of learners' task value with the social factor of school location (r = .267, p = .005). However, no significant correlation existed between task value and the father's education or the mother's education. Likewise, monthly income was not correlated with task value significantly. The school location variable is also moderately and positively correlated with learners' BPN factors competence (r = .309, p = .001) and relatedness (r = .309, p = .001). When it comes to BPN constructs, there exists a strong correlation between task value and autonomy (r = .667, p = .000). Task value is also significantly and positively correlated with BPN constructs competence (r = .638, p = .000), and relatedness (r = .591, p = .000).

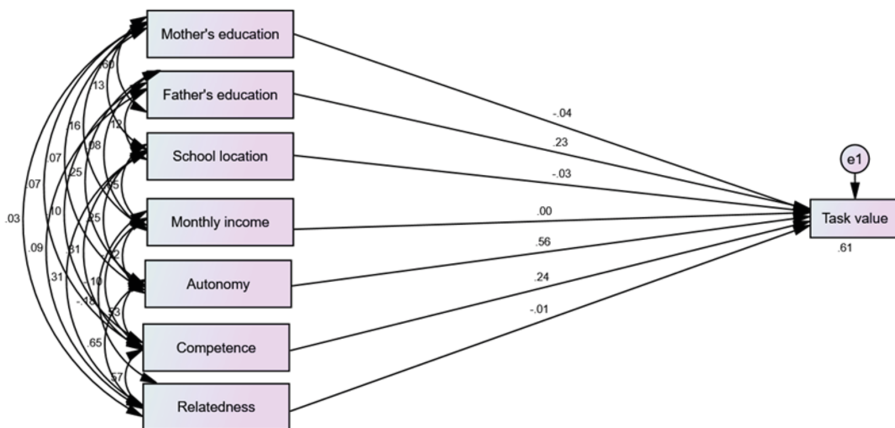
Among the SES factors, a significant correlation exists between task value and school location. Among the BPN factors, the highest correlation exists between task value and autonomy.

What Is the Effect Size of SES and BPN Factors on Their Task Value?

A structural equation modelling analysis was done using the IBM SPSS AMOS 24.0 version. SES and BPN factors of the learners together explained 61% of the variance ($R^2 = .61$, $p < .001$) in their task value. The direct effect of the father's education level was positively associated with their task value ($\beta = .23$, $p < .001$). Among the SES factors, the father's education had the largest effect on the learners' task value. Among the BPN factors, autonomy had the largest positive effect on task value ($\beta = .56$, $p < .001$). The BPN factor competence had the second largest effect on task value ($\beta = .24$, $p < .001$). The effects are presented in Figure 1.

Figure 1

Effects of SES and BPN Factors on Task Value



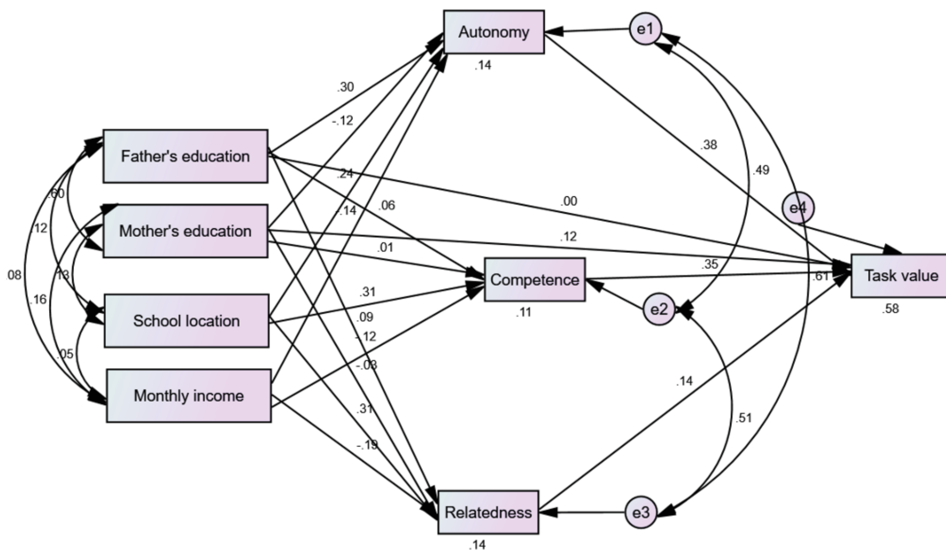
How Do the SES Factors Affect Learners' Task Value through the BPN Factors?

A path analysis was conducted using a model where three BPN factors, namely autonomy, competence, and relatedness were simultaneous mediators in SES factors' relation with learners' task value. The standardized path coefficients are $\chi^2 = .925$, $\chi^2/df = 2$, GFI = 1.00, AGFI = .994, CFI = 1.000, TLI = 01.100, RMSEA = 0.000, SRMR = 0.004. These coefficients exhibited a very good fit of the model to the data. In Figure 2, the path model results show that the father's education, as an SES factor, does not relate to learners' task value directly ($\beta = .00$, $p = .968$). However, learners with a father's education

on a higher level reported a higher level of autonomy (β = .30, p < .006) and learners with higher autonomy reported higher task value (β = .38, p < .001). This estimate indicates if a father's education goes up by 1 standard deviation, autonomy goes up by .303 standard deviations. Father's education was not significantly related to competence (β = .06, p < .564) or relatedness (β = .09, p < .438). The mother's education and monthly income were not significantly related to BPN factors. This model obtained a higher coefficient of autonomy for a school location that was situated in a city (β = .24, p < .008) and learners with a higher level of autonomy exhibited higher task value (β = .38, p < .001). Likewise, a higher score for school location was related to a higher level of competence (β = .31, p < .001) and the higher competence was related to a higher task value in the model (β = .35, p < .001). School location was also significantly related to relatedness (β = .31, p < .001). These standardized regression coefficients indicate if the school location goes up by 1 standard deviation, autonomy goes up by .24 standard deviations. In the same situation, competence goes up by .35 standard deviations and relatedness goes up by .31 standard deviations. Overall, SES and BPN factors explained a 58% variance in the task value of EFL learners in the path model.

Figure 2

Path Model with Standardized Estimates



Do BPN Factors Mediate the Relationship between Learners' SES and Their EFL Task Value?

A two-step mediation analysis was conducted to identify the probable BPN factors as mediators in the relationship between SES factors and learners' task value. To identify the probable mediators in the model, the bootstrap method was used in the mediation tests (MacKinnon et al., 2002). The data was bootstrapped 2000 times with a 95% confidence interval with bias correction that yielded the *p* values from a two-tailed significance test. The mediation results were interpreted following the causal steps approach suggested by MacKinnon et al. (2002) and Baron and Kenny (1986). Two BPN factors, namely autonomy and competence, emerged as mediators in the relationship between SES factor school location and learners' task value. The direct and indirect effects are presented in Table 2.

Table 2

Direct and Indirect Effects of School Location on Task Value through Autonomy and Competence and Relatedness

Pathway	Direct without mediators	Indirect	Confidence Interval		(P-Value)	Conclusion
			Lower	Upper		
SCL → AUT → TVAL	1.07***	.433***	.072	1.114	.012***	Partial
SCL→ COMP → TVAL		.484***	.117	1.166	.001***	Partial
SCL→ RELAT → TVAL		.189***	-.063	.630	.129	No Mediation

Table 2 shows that, at the first step, the direct path from school location to task value was significant without the mediators ($\beta = 1.07$, $p < .010$). In the next step, after including the mediators, the direct paths from the school location to task value through autonomy ($a_1\beta = .25$, $p < .007$, $b_1\beta = .39$, $p < .001$) and competence ($a_2\beta = .31$, $p < .001$, $b_2\beta = .35$, $p < .001$) were also significant. In this model, the β values of the paths from the school location to task value were smaller in the presence of autonomy and competence than the direct path from the school location to task value without the mediators. The indirect effects of school location on task value through autonomy ($\beta = .43$, $p < .012$) and competence ($\beta = .48$, $p < .001$) were also significant which suggests partial mediation of autonomy and competence in the relationship between school location and task value. Among the mediators, competence exerts a stronger mediation effect between school location and task value. The indirect effect of relatedness was insignificant; therefore, it did not mediate the relationship between school

location and task value. Father's education, mother's education and monthly income also did not have significant direct effects on the BPN factors which, according to Fritz and MacKinnon (2007), did not warrant a mediation analysis.

Discussion

The correlation analysis yielded the answer to the first research question. There was no significant relationship between the SES factor father's education and learners' task value. This finding differs from Musgrave's (2000) finding that reports that learners with well-educated family backgrounds assigned more value in engaging in learning activities in studies (Musgrave, 2000). Financial status was also not found to be significantly related to any BPN factors or learners' task value which contradicts the findings of Akram et al. (2021) who reported that financial low status contributed to learners' less interest in learning L2. The social factor of school location had a significant positive correlation with learners' task value. This finding is in accord with the finding of Deci and Ryan (2015) who reported a positive relationship between BPN support from elementary school and an increase in intrinsic motivation among learners (Deci & Ryan, 2015). Intrinsic motivation is similar to the intrinsic value component of the task value concept of expectancy-value theory.

Among the BPN factors, two constructs, namely competence and relatedness, had a strong significant correlation with task value. This finding reinforces the claim of Niemiec and Ryan (2009) that a conducive atmosphere that supports learners' basic psychological needs, that is, autonomy, competence, and relatedness, fosters greater value in engaging in tasks which leads to better performance (Niemiec & Ryan, 2009). In this regard, empirical researchers have claimed that people's self-motivation rockets high if they feel themselves competent to do something; if they want to identify or relate themselves with others that they feel close to and if they automatically endorse the task at hand with self-volition (Takahashi & Im, 2020).

The effect sizes of SES and BPN factors were calculated by conducting a structural equation analysis to answer the second research question. Among the SES factors, the father's education had the largest effect on learners' task value. This finding is in accord with the research findings of Kuehn and Landeras (2012) who reported a higher task value to complete homework shown by learners whose parents had high educational attainment (Kuehn & Landeras, 2012). This fact is explained by Steven (2002) who maintained that parents with high education levels eventually become exemplars to their children having positive impacts on their values and performance (Steven, 2002).

Autonomy, among the BPN factors, exerted the largest effect on learners' task value followed by competence which had the second largest effect on task value. This finding is in accord with the research finding of Ariani (2019) who asserted that autonomy had a direct effect on task value and engagement (Ariani, 2019). Tsai et al. (2008) also reported that learners' interest in learning tasks enhanced in autonomy autonomy-supported teaching environment (Tsai et al., 2008). Both autonomy and competence have also been reported as essential conditions for enhancing task value (Ma, 2009; Holster, 2022) and sustaining intrinsic motivation of learners that leads to greater interest and persistence in engaging in learning activities (Niemiec & Ryan, 2009).

A path analysis addressed the third research question on how the SES factors may affect the task value through learners' BPN. The path diagram shows that learners with a father's education on a higher level reported higher autonomy which in turn positively affected their higher task value which indicates that learners with an educated family background tend to have higher autonomous motivation in learning English which increases their task value. This finding is congruent with that of Holster (2022) who reported a significant amount of parental influence on their children's BPN factors and in turn, on their task value (Holster, 2022). Froiland (2020) also asserted the positive impact of parental autonomy support on learners' task engagement (Froiland, 2020). In line with this finding, Butler (2013) reported that educated parents were more likely to feel more responsible for their children's education and provide direct and indirect support to their English learning because of their high expectations of their children's performance (Butler, 2014). The second SES factor to affect task value through BPN was the school location. Learners coming from urban school locations had higher levels of autonomy and competence that positively affected a higher task value. This finding supports the findings of Ma et al. (2005) in China who reported that EFL learners coming from urban schools had higher motivation than their rural counterparts (Ma et al., 2021).

The results of the mediation analysis revealed autonomy as a partial mediator in the relationship between school location and task value. Competence, as the second BPN factor, also emerged as a partial mediator in the relationship between school location and learners' task value. These findings corroborate the findings of Youssef (2018) who reported that learners with higher scores on SES factors also scored higher on the satisfaction of BPN factors (Youssef, 2018). Due to the scarce literature on mediation analysis on the same variables, the possibility of comparing this finding with the previous ones becomes slim. In Bangladesh, Ahmad (2005) and in China, Ma et al. (2021) observed less motivation among rural EFL learners coming from rural educational institutions as opposed to their urban counterparts (Ahmad, 2005, 2014; Ma et al., 2021). The current research sheds new light on the fact stating that learners' autonomy and competence play a significant role in between school location

and their task value which emphasizes the necessity to support learners' BPN in rural contexts to ensure optimal learning.

Pedagogical Implications

The findings of the current study have some important pedagogical implications for the teaching and learning of English in EFL contexts. As task value is held crucial in achieving success in EFL learning, a knowledge of the factors that affect learners' task value could help the EFL practitioners to design their materials and classroom techniques with the aim of supporting the learners' existing BPN and in turn, enhancing task value to the next higher level. At the same time, it is also beneficial to have a deeper understanding of the probable impacts of various social factors that learners bring into the classroom, which may affect their motivation to be engaged in EFL class activities. According to Deci and Ryan (2015), when autonomy is not supported at home or school during learners' developmental years, only competence and relatedness are promoted, and learners tend to grow controlled motivation which is extrinsic motivation. This learning context leads to a surface strategy of memorization of lessons with a low level of understanding of the core concept (Deci & Ryan, 2015). This view is supported in the Bangladeshi context where, according to Rahman (2005), the majority of learners had an instrumental orientation to learn English (Rahman, 2005). EFL learners also revealed that they employed mainly memorizing techniques to learn English (Hossain, 2021). The current research advocates the necessity to support learner autonomy at home and in educational institutions to enhance intrinsic motivation among Bangladeshi EFL learners to learn English.

Since previous researchers reported a lack of motivation among rural learners and the current study has revealed that autonomy and competence mediate in the relationship between school location and task value, rural instructors could be trained to support the need for learner autonomy and competence to enhance their task value and engage them persistently in learning activities. This may help instructors to have an insightful overview of why some learners are more determined and consistent in putting effort into learning their target language in comparison with their less motivated counterparts. Particularly, teachers need to announce reasons for rules and activities in the classroom that may trigger self-endorsed engagement in learning tasks by the learners.

Apart from the teacher-student conversational dynamics, insights into the role of support from learners' family members in acquiring the target language could offer new pathways for policymakers regarding the benefits of autonomous parenting. In this regard, Baumrind (1971) distinguishes between permissive, authoritarian and authoritative parenting and suggests that providing

meaningful structure and rationale for rules at the household increases learners' autonomy as opposed to fully permissive parenting which leads to disorder and low academic achievement by their children (Froiland, 2020). Touching upon the fact that adolescent learners have a greater need for autonomy, Froiland (2020) advocates universal training for parents on learner autonomy support at various stages of their children's education.

Limitations of the Study

Similar to most other research, the current study also has a number of limitations. First of all, though the sampling was adequate for the correlational research design of this study, the data was collected from a single region of Bangladesh. Future researchers may consider conducting large-scale surveys to study the task value of more diversified EFL learners from various regions of a country. In addition, it was a cross-sectional study and the researcher collected data at one point in time. A longitudinal study may have yielded a different set of data and interpretation of results. Finally, apart from BPN and SES factors, there could be other personality and classroom-related factors that may affect EFL learners' task value, which, due to the time constraints, have not been explored in this study. Future researchers may examine the complex relationship between learners' personality and classroom-related factors and their impacts on learners' task value and language achievement.

Conclusion

This research examined the role of SES and BPN factors of EFL learners in their interest and motivation for engaging in tasks to learn English. Also, this study revealed that the father's education and school location are the two most influential SES factors to impact their two BPN factors, namely autonomy and competence which in turn significantly and positively influence their task value. In this regard, teachers cannot change learners' SES factors; however, they need to consider the social-cultural beliefs and values of the learners' surroundings regarding learning English to cater to their goals of learning it and capitalize on their dominion of motivation and ameliorate their teaching techniques to get the best outcome of it from the students' engagement to the tasks. This way, teachers may not only bring up the best outcome from the learners' efforts but also integrate the less motivated learners into active participation in learning EFL. The pedagogy should be pivoted on the students' satisfaction

of basic psychological needs and enjoyment of learning. Regarding the fulfilment of the basic psychological needs of EFL learners to learn English, the parents at home could support the autonomous motivation of the learners and the teachers in class could help them gear up their self-conscious participation into a fully internalized determination to successfully learn EFL. Further research is needed to explore ways to devise materials and teaching methods to heighten task value among students who come with low BPN factors and from adverse socio-economic backgrounds. Future researchers may examine the dynamics of SDT and classroom engagement of learners and the applicability of the current teaching methods to heighten the self-determination of EFL learners.

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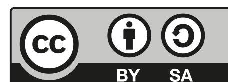

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Exploring Lexical Sophistication in Second Language: An Analysis of Vocabulary Using a Word-Rating Method

Abstract

Previous research has established that determining lexical sophistication (i.e., the percentage of sophisticated words in a text) through the judgment of teachers on a corpus of words is a more accurate method than relying on word frequency-based lists. However, this approach can be time-consuming. To overcome this drawback, a new method is proposed in this study, which involves rating specific words out of context.

A list of 68 words that appeared in approved high-school textbooks of teaching Hebrew to Arabic speakers was given to six experienced Hebrew teachers, who then categorized the words into four levels of lexical sophistication: (1) very basic words to (4) very advanced words. From this, a list of 28 words was created, with seven words from each level, and the lexical sophistication level was agreed upon by two-thirds of the teachers. Nineteen Arabic-speaking learners of Hebrew were asked to define the chosen words (passive vocabulary) and compose a sentence including each (controlled-active vocabulary) in a test-retest study at two time-points: the 11th and 12th grade.

The results indicated that although there was no significant increase in lexical sophistication over time, significant differences emerged between the four levels of lexical sophistication, with students' accuracy decreasing as the level of lexical sophistication increased. Additionally, only in the 11th grade was passive vocabulary found to be significantly larger than controlled-active vocabulary. However, as acquisition time increased, the gap between these two vocabulary types narrowed, due to improved performance in the controlled-active task. Furthermore, a significant correlation was found between passive and controlled-active vocabulary, which became stronger with more acquisition time.

Keywords: language assessment, second language acquisition, passive vocabulary, controlled-active vocabulary, advanced/sophisticated words

State of the Art

The various lexical indices in use today assume that there are two main ways to evaluate a learner's vocabulary: by evaluating the size of the vocabulary (vocabulary breadth knowledge) and by evaluating the quality of the vocabulary (vocabulary depth knowledge) (Nation, 1990; Milton, 2009; Ellis, 2015). The index of lexical diversity applies only to the breadth of knowledge, as it evaluates the variety of words in a sample of speech or writing (Read, 2000). This is typically done by calculating the ratio of unique words (types) to total words (tokens) (Jarvis, 2017; Abu-Rabiah, 2023). However, it is important to also examine the depth of knowledge, as high lexical diversity does not always point to high lexical proficiency—the extent of diversity can be expressed in very simple words which do not testify to lexical sophistication. The index of lexical sophistication differs from the index of lexical diversity, as it attributes a different level of importance to different words, as opposed to simply counting the number of distinct types (Daller et al., 2003). Consider the following two sentences:

- Pupils answered questions.
- Looters smashed panes.

Each one includes three tokens and three types, and so their lexical diversity stands at 100%. Both sentences possess the highest possible level of diversity, but with an essential difference: the first is comprised of simple words which do not testify to a high level of proficiency, while the second sentence is based on advanced vocabulary which testify to the learner's high lexical proficiency. This means that the quality of word use in the two sentences is not identical. As a result of this difference between words, researchers proposed an index of lexical sophistication that enables a distinction between simple and advanced words.

Lexical sophistication is defined as the percentage of sophisticated words or advanced words in a text (Lindqvist et al., 2011). This index also allows the quantification of the appropriate use of low frequency vocabulary items (Malvern et al., 2004). It also enables testing the use of the technical terms and jargon which allow the author to express meaning in a more precise and acceptable manner, given the discipline about which he or she is communicating (Read, 2000). There is no agreement regarding the exact meaning of *sophisticated words* or *advanced words*, leading different researchers to define these terms differently (Lindqvist et al., 2011). One approach is to view them as rare words (Vermeer, 2000; Kyle & Crossley, 2016), where the first approach to testing lexical sophistication developed on the basis of this definition.

Testing Lexical Sophistication According to Frequency Tables

The first method of testing lexical sophistication is based on frequency lists. Frequency is an important factor in acquiring a vocabulary, and is therefore important when testing vocabulary (Ellis, 1997, 2002; Nation, 2001, 2006; Cobb & Horst, 2004; Milton, 2007; Kojima & Yamashita, 2014). Common words are easier to acquire than rare words (Tidball & Treffers-Daller, 2008). The most common words are accessible to most learners, but rare words are only accessible to the advanced learner. The learners' lack of acquaintance with the most frequent words points to their relatively meager vocabulary, as it does not include common words which are frequently used. The use of advanced words in written texts is an indicator of high language proficiency (Linnarud, 1986) and is a sign of a rich vocabulary and of the learner's academic success (Laufer & Nation, 1995).

Knowing the 2,000 most common words in a target language (English as a second language, or L2) is a basic threshold for verbal communication, especially at the beginning of the process of language acquisition (Laufer, 2005; Azodi et al., 2014). Furthermore, the 2,000 most common words make up 87% of written texts and 80% of typical academic texts in English, while the 1,000 most common words make up 75% of official written texts in English (Laufer & Nation, 1999).

Scholars proposed various indices for testing sophistication based on frequency tables, such as the Advanced Guiraud, P-LEX, LFP, S, Advanced TTR, and others. These are used to calculate the ratio between the number of advanced/sophisticated words and the total number of words in a given corpus (Kojima & Yamashita, 2014). One of the first tools using this method is termed the Lexical Frequency Profile (LFP). This tool enables the evaluation of the learner's productive vocabulary size by testing the words he wrote or said according to the frequency in which the various words appear (Laufer & Nation, 1995; Laufer, 2005).

A second tool for testing lexical sophistication based on frequency tables is the P-LEX (Meara & Bell, 2001). This tool divides the text into segments of ten words and calculates the number of *difficult* words in each segment. This tool uses the term *difficult words* to refer to words that are not on the short list of the 1,000 most common words (Meara, 2001). Higher calculated values point to a larger vocabulary. Beyond 2,000 is yet another tool that was proposed for texting lexical sophistication, also based on the division into levels of frequency. This tool distinguishes between two frequency groups: the 2,000 most common words, which make up a basic vocabulary, and words which indicate a more advanced vocabulary (Laufer, 1995).

The aforementioned indices, which test lexical sophistication, calculate the ratio between advanced words and the total number of words (Kojima & Yamashita, 2014). Researchers noted the disadvantages of each of these indices,

for example, beyond 2,000 is inefficient when testing low levels of English proficiency, as learners on these levels do not know many words beyond the 2,000 most common ones (Meara & Bell, 2001). This claim is also valid for the S index, which does not distinguish between basic words and advanced words, but rather focuses only on the advanced words which are classified into different levels of frequency. This tool assumes that advanced words which are close in frequency to the common words should not be considered advanced and rare, since as the learner's vocabulary grows, so does the frequency range of the words he uses (Kojima & Yamashita, 2014).

There are studies which tested lexical sophistication through the combined use of several different tools. In a study of English as L2 to Japanese, as reflected in essays (the average length of each essay is about 400 words) which students wrote in 60 minutes, lexical sophistication was tested by using Advanced TTR, Beyond 2000, S, and P-LEX (Kojima & Yamashita, 2014). In this study grammatical errors were corrected, words that were not in English were not included, and if the usage of a word was incorrect, then it was not counted, since it was inadequately acquired by the learner. Results of this study showed that the P-LEX and S indices are not influenced by text length, while Beyond 2,000 and Advanced TTR are more sensitive to text length, and therefore it is inadvisable to use them for texts of different lengths. The researchers noted that there is an optimal length of texts which these indices test: The S index is suitable for texts of around 200 words, the P-LEX for around 300 words, and Beyond 2,000 and Advanced TTR are best used for texts over 1,000 words in length (Kojima & Yamashita, 2014).

Other studies found testing lexical sophistication using exclusively frequency-based tools to be insufficient, and that other methods based on different considerations (such as teachers' evaluations) are more efficient for testing lexical sophistication. This is true because a word's level of lexical sophistication results from many factors, of which frequency is only one (Horst & Collins, 2006; Tidball & Treffers-Daller, 2008).

Testing Lexical Sophistication According to Teacher Evaluation

The second method for testing lexical sophistication relies upon teachers' evaluations of sophisticated or advanced words. This method recognizes the fact that the level of a word's sophistication is not only a function of frequency, since there are rare words that are easily acquired. For example, rare words in the mother tongue (L1) which have a cognate in L2 will be acquired more easily than other words within the same level of frequency which are not cognates (Tidball & Treffers-Daller, 2008). Despite their rarity, these words are

easily acquired thanks to their cognate in L1, and for those learners are not to be considered sophisticated or advanced.

A longitudinal study tested the writing skills of French speakers who were studying basic English before and after 400 hours of instruction, gathering a corpus of 80,000 words. Results showed that the learners preferred the use of rare words which are cognates to words in their mother tongue to common words which are not cognates (Horst & Collins, 2006). The researchers noted an increase in the learners' lexical sophistication over time: they used fewer cognates as time went by, interspersed more of the common words, and even used morphologically complex forms. This means that over time there was an increase in the level of lexical sophistication, but relying exclusively on word frequency tables (like the LFP) would not have enabled the researchers to detect this lexical progress.

The approach based on teachers' evaluations developed as a result of the various factors which can influence the level of word sophistication. Using this approach, the researchers give teachers words to rate according to a scale ranging from basic/unsophisticated/common to advanced/sophisticated/rare. The number of levels on the scale is not fixed, but varies according to the evaluations of both the researcher and the experienced teachers. Some researchers give the teachers a list of all the word types in a particular corpus and ask them to rate the words on a basic-advanced scale, after which they measure the ratio of advanced words to all the words in the text. For example, one study using this method (Daller et al., 2003) had seven teachers of Turkish as L2 rate 693 types written by students learning Turkish at a basic level. The teachers were asked to classify the types into three groups characteristic of those who learn Turkish as L2: one group of words for learning on a basic level, one for learning on an intermediate level, and one for learning on an advanced level. The teachers sorted the words into these three groups based on their teaching experience. The researchers found that the classification of advanced and basic words based on the evaluations of experienced teachers was an efficient method for testing progress in vocabulary acquisition. This finding can be explained in two primary ways: first, frequency tables sometimes include words closer to those in the higher level as well as closer to those in the lower level within the same list. This means that the level of frequency is a gradated property that does not clearly divide into separate groups. Second, the teachers' operationalization for what is considered a basic vocabulary is more precise than relying upon frequency lists. This means that teachers define basic vocabulary more precisely than they do advanced vocabulary, and even distinguish better between different levels of frequency (Tidball & Treffers-Daller, 2008).

A similar study of lexical sophistication in French as L2 for English speakers had three experienced teachers rate 932 word types in a corpus written by the students, according to a scale comprised of seven levels of lexical sophis-

tication: Level 1 marked the most basic words, and Level 7 marked the most advanced words. The researchers found that determining lexical sophistication based on teachers' evaluations is more precise than tests which are based on word frequencies (Tidball & Treffers-Daller, 2008).

The disadvantage of testing lexical sophistication using teachers' evaluations of types in a particular corpus is that not all the declensions of any given type are equal in their level of sophistication. Some of the declensions are more basic, while others are more advanced. The declensions within the different levels of difficulty exist in basic types, such as *child*, *children*, and *childhood*, and also in the advanced words, such as *chamber* and *chambers*. In addition, this method requires much of the teachers' time, as rating hundreds of words is not an easy task, especially when rating on a multi-level scale (Abu-Rabiah, 2022).

Studies of Lexical Sophistication Using Both Methods

One study tested the relationship between passive vocabulary knowledge and lexical sophistication in writing, as well as general lexical richness, using four frequency groups: Up to 2,000 words, 2,000–3,000, 3,000–5,000, and 5,000–10,000 (Henriksen & Danelund, 2015). Speakers of English as L2 were asked to write argumentative essays in 90 minutes with no assistance. Results show that students with a broader active vocabulary tend to have higher levels of lexical sophistication. A slight correlation was found between the use of sophisticated words and the general writing score as well (Linnarud, 1986).

A number of lexical richness indices, including lexical sophistication and lexical diversity, were tested on essays written by Hebrew- and Arabic-speaking first-year English Literature students at an Israeli university. These students wrote two essays in English as L2, one before the beginning of their studies and the second after their first or second semester. Both tasks were part of a university exam—ensuring the students' high motivation for success—without assistance and without prior knowledge of the essay topic. Results demonstrate that the percentage of frequent words declined over time, while the percentage of rare words increased. The lexical profile of the students had changed; however, it was still twice as low as that of native English speakers (Laufer, 1991 b).

Similarly, Astridya (2018) tested a number of lexical richness indices, including lexical sophistication and lexical diversity, in argumentative essays written in English as L2 by native Indonesian high-school students in the 10th, 11th, and 12th grades. Both lexical sophistication and lexical diversity increased with age, where the 12th-graders had the highest level of lexical richness. In 10th grade the students' vocabulary was still limited, with repetitive use of the same types; the 11th graders started using vocabulary appropriate to the given

topic; while the 12th graders clearly and carefully chose the words they wrote. It seems that these students improved their writing skills by choosing the words best-suited for argumentative writing, with skills increasing according to age and exposure to the language.

Lindqvist et al. (2011) also measured different indices of lexical richness in French and Italian as L2 for native Swedish speakers by using word frequency tables in all three languages. Lexical richness indices between speakers of different levels of proficiency within each language were also compared. They found that there are differences in the various lexical richness indices between the different groups, according to the different levels of proficiency: In French, the lexical profile of high-proficiency students was identical to that of native French speakers, while in Italian, the lexical profile of high-proficiency speakers was nowhere near that of native Italian speakers. This is explained by the fact that some of the highest-proficiency French speakers had spent a few years in the target language country, while the Italians did not.

In a different study on lexical sophistication and lexical diversity, Waldvogel (2014) found a significant increase in the two indices between middle- and high-level students of Spanish as L2. He noted that the increase in lexical richness of the high-proficiency group was slower than that of the less proficient group, because the latter felt that they still had much to learn, and therefore put in a greater effort. Contrastingly, the former felt that they had learned a lot, with their previous learning sufficing, and therefore did not put in much effort. This phenomenon, the Active Vocabulary Threshold Hypothesis, posits that a learner's vocabulary increases up to the average level of the group they are in, after which they no longer make an effort to broaden their lexical repertoire and invest less in the learning process. Similar findings were reported in a study on the lexical sophistication L1 and L2 English writers (Kwon, 2009).

To the best of my knowledge, this is the first study which tested lexical proficiency in Hebrew in general, and in Hebrew as L2 for Arabic-speakers in particular.

Limitations of Testing Lexical Sophistication

In general, word frequency changes according to the written corpus upon which the frequency tables were created. A word can appear very frequently in an academic corpus, but very rarely in a journalistic corpus. General corpora collected from a variety of internet sites are not identical, and the same word can appear in different levels of frequency. For example, in the corpus of the 10,000 most common words in Hebrew, the indefinite type *baayit* [house], without a preposition or subordinating conjunction, is listed as one of the 50

most common words. As opposed to this, this word is only one of the 300 most common words in sketchengine's heTenTen's (Hebrew) corpus.

Furthermore, frequency tables generally do not distinguish between acquiring a language as L1 or L2, though there is clearly no symmetry between acquiring a language as L1 and acquiring it as L2. A word acquired in an intermediate level in L1 may be acquired at an earlier stage in L2 due to its necessity given the learning environment and the average age of the learners.

Testing lexical sophistication in Hebrew based on frequency tables has several disadvantages. First, the distribution list of words in Hebrew is based on orthographic types. This means that there are no frequency tables of lemmas. In this case, we cannot derive exact conclusions about the frequency level of the lemma. This difference is especially notable when the lemma is accompanied by a definite tag, or by a preposition or subordinating conjunction, as opposed to not being thus accompanied. For example, in sketchengine's heTenTen frequency list: The type *ha-baayit* [the house] is listed as one of the 200 most common words, but the same type without the definite article and without preposition or subordinating conjunction, *baayit* [house], is rarer (among the 300 most common words), and when accompanied by the preposition 'in' [*babayit*, in the house] it is even rarer (among the 900 most common words).

Second, Hebrew frequency tables do not distinguish between different types written in a similar manner (homographs). For example, in Wiktionary's Hebrew frequency list, the words *em/im* [mother/if] and *ha-em/ha-im* [the mother/is it] are among the 100 most common words, the word *ve-em/ve-im* [and the mother/and if] is among the 500 most common words, and the word *she-em/she-im* [that the mother/that if] is among the 800 most common words. In all these words there is no way of knowing whether they refer to a noun (*em*, mother) or a conditional (*im*, if). The prevalence of homographs in Hebrew, due to its consonantal writing system (Cook, 2016), poses a significant challenge in language testing contexts. Given their occurrence in approximately 23% of isolated words within the language (Shimron & Sivan, 1994), reliance solely on frequency lists for language testing purposes becomes less than optimal.

Testing lexical sophistication in Hebrew using teachers' evaluations, as in the previous studies, also has limitations. First, similar to testing lexical sophistication through frequency tables, different tokens of the same type do not always reflect uniform levels of difficulty or distribution. Second, looking for experienced teachers who teach Hebrew as a L2 to native Arabic speakers who are willing to voluntarily rate all the word types in a given corpus according to levels of lexical sophistication is unrealistic, as this type of classification requires time and effort.

Given all the disadvantages and limitations of the two methods of testing lexical sophistication, I used a practical new method which enabled me to overcome the aforementioned disadvantages and limitations while adapting to the characteristics of the tested language.

Methodology

Consolidating a List of Words and Determining Levels of Lexical Sophistication

I conducted a survey of Israeli Ministry of Education approved Hebrew L2 textbooks specifically designed for Arabic speakers. These textbooks were used in Arabic-speaking schools in the Negev in southern Israel over the past five years. I put together a list of 68 words, characteristic of Hebrew as L2 for high-school-aged Arabic speakers, which appeared in many of the texts within the different textbooks. This list was given to six Hebrew teachers who are native Arabic speakers themselves, each of whom had at least two years of teaching experience. The teachers were asked to rate the 68 words according to 4 levels of lexical sophistication:

1 = Very basic/common words
2 = Basic/common words
3 = Sophisticated/advanced/rare words
4 = Very sophisticated/advanced/rare words

The choice of four levels of lexical sophistication, and not three as in Daller et al. (2003) or seven as in Tidball & Treffers-Daller (2008), stemmed from my personal experience of rating the words. I found that classifying the words into three levels of lexical sophistication did not adequately express the gaps in lexical sophistication between words of average frequency, as some are closer to the common words and others are closer to the rare words. Therefore, I added a fourth level of lexical sophistication. Trying to rate the words according to five or even seven levels of lexical sophistication was not practical in this case, as the borders between adjacent levels of lexical sophistication on both ends of the scale were amorphic, akin to the difference between the two first levels on a five-level scale or the difference between the two lowest levels on a seven-level scale.

The teachers' ratings were carried out according to their evaluations, based on their knowledge which also included the curricula for Hebrew as L2 to Arabic speakers, the levels of texts that they teach in their various high-school classes, the texts on which the students are tested in their matriculation exams, and more. The teachers' ratings led to the creation of a list of 28 words which are equally distributed between the four levels of lexical sophistication, with seven words in each level. Only words which at least two-thirds of the teachers (four teachers out of six) agreed belonged to the same level of lexical sophistication were included in the task which was later given to the students. Note that there were words not included in the above list which, though at least four out of six teachers agreed upon, were not included in the task in order to keep

the number of words in each level of lexical sophistication equal (seven in each level), a number also dictated by the time limitation given for the students' task.

Tasks

As opposed to testing lexical sophistication through teachers' evaluations of unstructured essays (knowledge of active/productive vocabulary words), in this study the lexical sophistication tasks were constructed so as to test not only the level of word lexical sophistication but also the distinction between passive knowledge and active/productive knowledge, or between the students' vocabulary size/breadth and the depth of their vocabulary. In these tasks the participants were asked to define each of the 28 chosen words, in either Hebrew or Arabic—testing the breadth of vocabulary and passive knowledge—and to also insert each word within a sentence of their own (in L2), a task which tests vocabulary depth and controlled active knowledge. The definition of each word, as well as its insertion within a sentence, enables an examination of the relationship between these two types of vocabulary as well as of the relationship between them throughout the acquisition process.

In many cases, it is possible to understand a new word given its context, and therefore in this task, the words were given on their own, without context. This enables an examination of the breadth of the learners' vocabulary as it stands, with no additional factors related to the learner's ability to connect pieces of new information and understand new words from context.

Participants

The participants in the current study were Arab high school students in northern Negev, Israel. They started learning Hebrew in the second grade and studied about three to five hours a week as part of their formal education (Abu-Rabiah et al., 2023). The 19 research participants were students enrolled in the same science class, exhibiting comparable levels of academic achievement. During the study, they were taught Hebrew by an Arabic-speaking teacher as L1 (This population was described in detail in Abu-Rabiah, 2020). They performed the task at two-time points: the beginning of the year in the 11th grade and the beginning of the year in the 12th grade.

Research Questions and Hypotheses

RQ1-a: Do the differences in difficulty between the four levels of lexical sophistication match those given by the teachers?

Differences in difficulty between the four levels of lexical sophistication are expected to match the teachers' evaluations, as the teachers have much experience teaching Hebrew as L2, including preparing the students for their matriculation exams. The students' performance is expected to be lower as the level of lexical sophistication, according to the teachers' evaluations, rises.

RQ1-b: Are there differences in the students' improvement within the different levels of lexical sophistication?

I hypothesize an improvement. This improvement is expected to be relatively greater in the higher levels of lexical sophistication (3 and 4) than in the lower levels (1 and 2), as the lower levels of lexical sophistication include words which are considered to be easy, and as the students mature, they are more likely to be exposed to the more difficult words.

RQ2: Does the students' general level of lexical sophistication rise over time?

I expect an increase in the students' lexical sophistication over time, as they had many Hebrew classes during this period in which they worked on different types of exercises. In addition, they also heard Hebrew spoken outside of the classroom, both in formal settings (such as outings) and in informal settings (such as the media, visiting cities of Hebrew-speakers, and more).

RQ3-a: Are there differences between the size/breadth of the passive vocabulary (the word-defining task) and the controlled active vocabulary (the word-insertion task), and in the degree of improvement, over time?

A difference between depths of the two types of vocabulary is expected, as found in many studies, the passive vocabulary is generally larger than the controlled active vocabulary. In order to express one's passive knowledge, meaning to use it actively, the learner must control other linguistic skills beyond lexical ability, including a knowledge of syntax and grammar. As to the degree of improvement—no difference is expected as the result of instruction. This is because during the process of instruction, which is based on the curriculum of teaching Hebrew to Arabic speakers, no emphasis is placed on either of the two types of vocabulary.

RQ3-b: Is there a correlation between the two types of vocabulary?

The hypothesis of this study is that there will be a correlation between the passive vocabulary and the controlled active vocabulary, since the process of instruction includes not only the meaning of the words, but practice using these words within sentences as well. Thus, both passive and active knowledge are combined in the learning process. In addition, I expect this correlation to be stronger during the second time period (12th grade) as the instruction process continues, as does the expected increase in the students' linguistic

abilities, since the learners have more opportunities to use both their active and passive vocabularies.

Results and Discussion

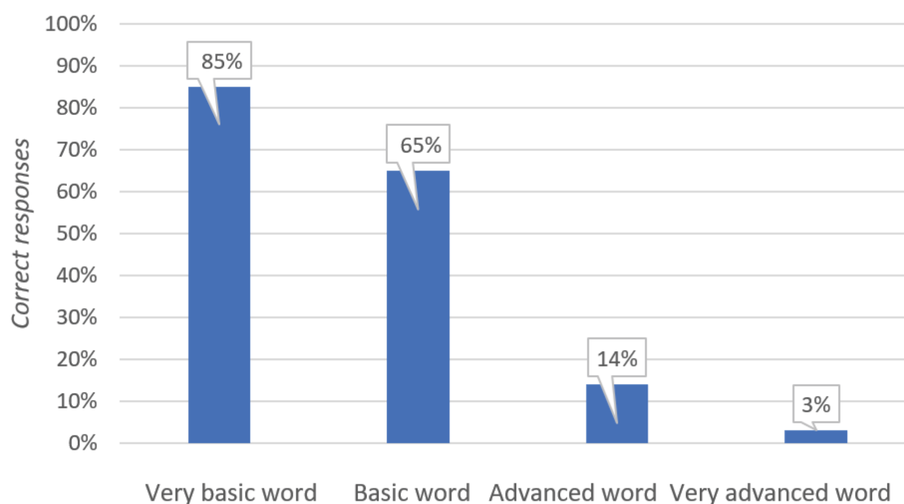
The Relationship Between the Level of Lexical Sophistication and the Degree of Improvement Over Time, and Teachers' Evaluations

RQ1

The following figure presents the percentage of correct responses within the four levels of lexical sophistication.

Figure 1

Percentage of Correct Responses within the Four Levels of Lexical Sophistication



The first part of the first research question looked for differences between students' achievements in the different word groups, which were based upon the words' level of lexical sophistication. This question ascertains whether or not the teachers' evaluations constitute a valid measure of the words' level of lexical sophistication (difficulty level). I expected differences between the different word groups according to levels of difficulty to match the teachers'

evaluations of the words. This is because the teachers have much experience teaching Hebrew as L2 for Arabic. I also expected the students' performance to be lower as the level of lexical sophistication rises, with the best performance in Lexical Sophistication Level 1 (very basic words) and the lowest performance in Lexical Sophistication Level 4 (very advanced words).

The results supported this hypothesis (see Figure 1), and show that generally—in both classes together—the differences between the two word groups are highly significant (chi-square test value: $p < .00$). In addition, as the level of lexical sophistication rises, the students' performance decreases (chi-square test value: $p < .00$) (see Table 1).

Table 1

Differences Between the Four Levels of Lexical Sophistication

Answer	Lexical Sophistication Level					Chi-Square Test
	Very basic word	Basic word	Advanced word	Very advanced word	Total	Test value
Correct	453	346	77	15	891	1024.133
Incorrect	79	186	455	517	1237	P-value
Total	532	532	532	532	2128	**0.000**

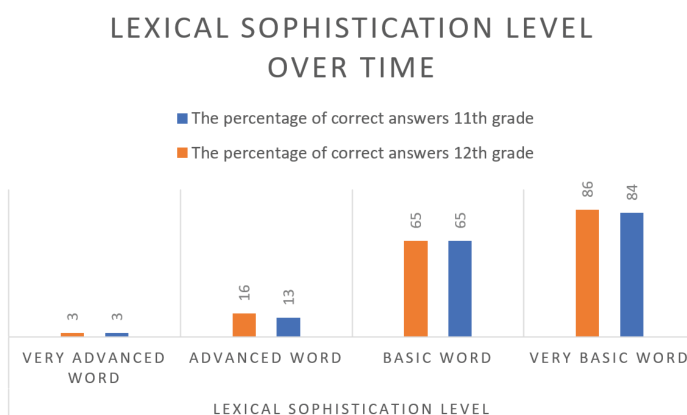
The easiest group is that of the most basic words (Lexical Sophistication Level 1): 453 correct responses and 79 incorrect responses; 85% of the responses were correct. The second easiest group is that of the basic words (Lexical Sophistication Level 2): 346 correct responses and 186 incorrect responses; 65% of the responses were correct. In these two groups almost two-thirds of the given responses were correct. The students apparently had mastery of these words. The next two groups of words were much more difficult. The third easiest group is that of the advanced words (Lexical Sophistication Level 3): 77 correct responses and 455 incorrect responses; 14% of the responses were correct. The fourth, and most difficult group, is that of the very advanced words (Lexical Sophistication Level 4): 15 correct responses and 517 incorrect responses; only 3% of the responses were correct. The students' great difficulty with the two groups of advanced words is apparent. Success in these groups is very limited, where less than one-fifth of all responses were correct. As noted above, there are significant differences between all groups of words, but the differences between the two basic groups and the two advanced groups are especially prominent. There is a 20% difference of correct answers between the two basic groups and an 11% difference between the two advanced groups. As

opposed to this, there is a 51% difference between the group of basic words (Lexical Sophistication Level 2) and the group of advanced words (Lexical Sophistication Level 3).

Similar to the general findings in the two age groups, results show that each of the two age groups shows statistically significant differences between the different groups of words, where the order of difficulty is identical: The most difficult level is the Very advanced words, then the Advanced words, followed by the Basic words and the Very basic words (chi-square test value: $p < .00$).

Figure 2

Lexical Sophistication Level over Time



The differences between success in the groups of basic words and the groups of advanced words can testify to the students' higher level of exposure to advanced words than to basic words. The expectation was that given the rise in instruction time, there will be greater exposure to the advanced words, which would be expressed in the students' increased mastery of the words in the advanced groups. However, results show that these high-school students have only a most basic grasp of the advanced Hebrew words (see Figure 2). These include words which are essential to their next stage in life—academic studies and the job market, which are difficult to navigate with only a basic vocabulary. Words which are considered advanced in relation to the study population are basic in many academic and work-related contexts, such as *zakai* (entitled), *hitḥayvut* (commitment), *tekes* (ceremony), and others. In the highest level of lexical sophistication, there was no improvement at all. This group included words such as *higyenah* (hygiene), *karukh* (encompass), *hikhriya* (determined), *poreh* (fruitful), *hasagah* (achievement), and others. Some of these words are considered basic in various situations and different places, and completing high

school without knowing them will make it difficult for the learner to succeed in the stages beyond high school, especially in academic settings.

Table 2

Multivariate Tests (Lexical Sophistication Level and Timepoints)

Multivariate Tests							
	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Lexical sophistication level	Pillai's Trace	.833	876.923[b]	3.000	528.000	**.000**	.833
	Wilks' Lambda	.167	876.923[b]	3.000	528.000	**.000**	.833
	Hotelling's Trace	4.983	876.923[b]	3.000	528.000	**.000**	.833
	Roy's Largest Root	4.983	876.923[b]	3.000	528.000	**.000**	.833
Lexical sophistication level * timepoint	Pillai's Trace	.003	.544[b]	3.000	528.000	.652	.003
	Wilks' Lambda	.997	.544[b]	3.000	528.000	.652	.003
	Hotelling's Trace	.003	.544[b]	3.000	528.000	.652	.003
	Roy's Largest Root	.003	.544[b]	3.000	528.000	.652	.003

As can be seen in Table 2, the effect of the level of lexical sophistication on the percentage of correct answers is statistically very significant ($p < .01$; .000), in contrast to the effect of the time point ($p > .05$; .652). That is to say, the main factor that affected the students' success in the task was the level of lexical sophistication of the words they were asked to translate and put into sentences and not what grade they were in when they performed this task.

These findings show that the teachers' vast experience teaching Hebrew as L2 to Arabic speakers enables them to differentiate between words belonging to different levels of difficulty, and to rate them on a scale according to the difficulty levels as relevant to Arab students studying Hebrew as L2. These ratings were not a basic dichotomic division between basic words and advanced words, but a more complex rating that included four levels of difficulty. The teachers who rated the words for this study were not trained in classifying words according to the level of difficulty, and had never done so in the past. Despite this, statistically significant differences were found in the students' achievement levels with the different levels of lexical sophistication which matched the teachers' evaluations. This shows that using teachers' evaluations for determining the difficulty or lexical sophistication level of words is a valid tool. This proof, the first of its kind within studies on Hebrew vocabulary, was found in previous studies as well, such as the one conducted on Turkish as L2 (Daller et al., 2003) and on French as L2 (Tidball & Treffers-Daller, 2008).

The Relationship Between Lexical Sophistication and Increase in Acquisition Level

RQ2

This question tested whether there is a statistically significant difference between the students' level of achievement on the two tasks between the beginning of the research (11th grade) and its end (12th grade). Since the students learned many hours of Hebrew throughout the year, and also heard and experienced it in both formal and informal settings, I expected an increase in lexical sophistication over time. This expectation was refuted, as results show no statistically significant differences between the two points in time based on the number of correct responses given by students in both grades (chi-square test value: $p > .05$; Mann Whitney test: $p > .05$) (see Table 3). There is a slight increase in the number of correct responses: In 11th grade 438 out of the 1064 responses were correct, whereas in 12th grade 453 out of 1064 responses were correct, but this increase is not statistically significant.

Table 3

Lexical Sophistication Level over Time

Answer	**Grade**			
	11th grade	12th grade	Total	Chi-Square Test
				Test value
Correct	438	453	891	0.434
Incorrect	626	611	1237	P-value
Total	1064	1064	2128	0.510
	Grade	N	Mean Rank	Mann-Whitney test value
Answer	11th grade	1064	1072.00	558068
	12th grade	1064	1057.00	P-value
	Total	2352	2128	0.510

The lack of statistically significant increase in the students' level of lexical sophistication can be explained by the fact that one year of instruction is likely not long enough to significantly develop the vocabulary of the Arabic-speaking learners of Hebrew. A study which examined English as L2 for Kannada speakers found a significant difference in passive vocabulary—as opposed to the controlled active vocabulary—between students in the 8th and 12th grades (Nemati, 2010). This difference reached a level of significance only after five

years of instruction, and not after one year as in the present study. A different study evaluated, among others, the development of controlled active vocabulary among Canadian students of English as L2. Even after two years of instruction in an L2 learning environment, no statistically significant improvement in controlled active vocabulary was found. The conclusion is that sometimes it takes more than two years to achieve such an increase (Laufer & Paribakht, 1998).

The limited number of words used in the study may have played a role in the lack of noticeable significant development. It included a small part of the learners' vocabulary and an even smaller fraction of all the words in the language. The current study used 28 words. However, even studies which included a higher number of words did not find a statistically significant increase in some lexical aspects. For instance, one study on passive vocabulary which examined 156 words and a controlled active vocabulary of 90 words, among 100 8th–12th grade English as L2 students in India, did not find any statistically significant difference between each class and the class one year above it (including 11th and 12th grades), neither in passive vocabulary nor in controlled active vocabulary (Nemati, 2010).

The present study employed a limited number of words for technical reasons over which I, as a researcher, had no control. Reasons included the busy schedule of the class tested, given the preparations for the matriculation exams, as well as delays and changes in school scheduling which, of course, influenced the times when the tasks were given to the students as well as the amount of time allotted for work on these tasks.

Differences and Correlations Between Passive Vocabulary and Active Vocabulary

Differences Between Passive and Active Vocabulary

RQ3-a

The first part of the third research question looked for differences between the two tasks, each of which evaluates a different type of vocabulary: The first task, writing a definition for each word, evaluated the respondents' passive vocabulary, while the second task evaluated their controlled active vocabulary by having them insert the words into sentences. The differences between the two types of vocabulary were examined from two aspects: level of breadth and the extent of improvement over time.

Table 4

Differences Between Passive and Active Vocabulary

Answer	Task			
	Writing a definition (Passive vocabulary)	Inserting into a new sentence (Active vocabulary)	Total	Chi-Square Test
				Test value
Correct	472	419	891	5.423
Incorrect	592	645	1237	P-value
Total	1064	1064	2128	**0.020**

The findings do not fully support the expectation for a statistically significant difference between the two types of lexicons, given the level of difficulty. The passive vocabulary was found to be significantly broader than the controlled active vocabulary only in the lower (11th) grade (chi-square test value: $p < .05$) (see Table 4). In this class 239 correct responses were given on the word-definition task and only 199 correct responses on the word-insertion task. The highest level of controlled active vocabulary was anticipated, as its expression necessitates the learner's mastery of many linguistic skills, including lexicality, grammar, syntax, and more, and not just lexicality as in the passive vocabulary.

Table 5

Differences Between Passive and Active Vocabulary

Grade			Task			
			Writing a definition (Passive vocabulary)	Inserting into a new sentence (Active vocabulary)	Total	Chi-Square Tests
						Test value
11th grade	Answer	Correct	239	199	438	6.209
		Incorrect	293	333	626	P-value
	Total		532	532	1064	**0.013**
12th grade	Answer	Correct	233	220	453	Chi-Square Tests
		Incorrect	299	312	611	.650
	Total		532	532	1064	P-value
						0.420

Conventional wisdom in the field of vocabulary research is that those who learn a language know more words than they can use (Fan, 2000). This thesis was supported by many previous studies (Laufer & Paribakht, 1998; Nemati, 2010; Hsu, 2014) as well as by the present study. According to this finding, the number of words which learners of Hebrew as L2 to Arabic identify when they read (or hear) them is significantly larger than the number of words available for their active use in a writing task in 11th grade (see Table 5).

In 12th grade the gap between the passive vocabulary and the controlled active vocabulary was greatly reduced. In this class 233 correct responses were given on the word-definition task and 220 correct responses on the word-insertion task. In addition, a correlation exists between the two types of vocabulary in 11th grade, whereas no such correlation exists in the 12th grade subjects. The gap between the number of correct responses between the two types of vocabulary was 40 in the 11th grade, but only 13 in the 12th grade. The decrease in this gap stemmed from the learners' improved performance only on the word-insertion task (from 199 correct responses in 11th grade to 220 in 12th grade), whereas there was no improvement in the word-definition task, and the difference between the two classes was insignificant. This finding does not contradict the previous finding, which proves the basic assumption in lexicon research that the passive vocabulary is greater than the active one. This finding only limits this assumption, and shows that it is not fixed within all levels of proficiency and may change with the increase in acquisition time.

There was an expectation that there would be no gap in the level of improvement between the two types of vocabulary, since in the instruction process, which is based on the Hebrew as L2 to Arabic learning curriculum, there is no focus on either type of vocabulary. This expectation was refuted, as findings revealed a prominent improvement in controlled passive vocabulary as opposed to the improvement in the passive vocabulary. The reason for this is probably that students throughout the school year had many opportunities for actively using their vocabulary, not only during Hebrew lessons but also in various formal and informal activities, including field trips and visits to Hebrew-speaking schools. Actively practicing the use of words they knew made it easier for them to transfer words from passive to active use. Therefore, no improvement was recorded in their passive vocabulary, which in any case was considered easy and basic, but there was considerable improvement in their active vocabulary.

Identical findings were documented in Nemati's (2010) research of 8th—12th grade Indian students of English as L2. The gap between passive and controlled active vocabularies in the higher grades was found to be smaller than in the lower grades, probably because the older students used English for communication purposes more than the younger ones. The study was carried out in a school where the language of instruction was English, the students' second language. In the present study, although Hebrew was not the language

of instruction in all subjects in the school, except for Hebrew, Hebrew is a second language for the students and is present in a variety of formal and informal contexts. This creates many opportunities for the students to actively express their passive knowledge. In a different study of L2 acquisition within a foreign environment, the gap between the breadth of the two types of vocabulary was high, as the lack of exposure to L2 in the foreign environment and the limited number of opportunities to actively use it delay the transfer of words that the learner knows (passive vocabulary) to active use (Hsu, 2014). The increase in acquisition does not always lead to a narrowing of the gap between the two types of vocabulary, as the relationships between the two types of lexicons are more complex than they appear (Fan, 2000).

Correlation between Passive and Active Vocabulary

RQ3-b

This research question examines the relationship between the two types of vocabulary within each of the time periods separately, and in both together. I expected a correlation between the two tasks, as each of them reflects one type of vocabulary. Results show a very significant correlation between the word-definition task and the word-insertion task (Pearson correlations = .744, $p < 0.01$). On the assumption that the first task reflects a passive vocabulary whereas the second a controlled active vocabulary, there a statistically significant correlation exists between the passive and controlled active vocabularies. This means that when the learner's performance increases in one of the two tasks (word-definition or word-insertion), then it increases in the other task as well. This relationship was recorded in many studies (Laufer, 1998; Nemati, 2010).

Furthermore, I expected an increase in this correlation within the second time period (12th grade) as the instruction process continues, together with the anticipated increase in the students' linguistic abilities resulting from the many opportunities for active use of their passive vocabulary. In addition, this expectation of an increase in correlation is supported by the finding of the previous research question, wherein the gap between passive vocabulary and controlled active vocabulary was greatly decreased.

Conclusion and Practical Implications

This research was the first to examine lexical sophistication in Hebrew as L2 to Arabic speakers (or in Hebrew in general). Given the many limitations imposed by testing lexical sophistication using word frequency lists, this study employed a new and more suitable method, which was based on teachers' evaluations of the level of lexical sophistication of words, as is acceptable by studies of this lexical index to date.

Results showed that among Arabic-speaking high-school students learning Hebrew as L2, only the lower grade (11th) had a broader passive vocabulary than controlled active vocabulary, but with acquisition time, the gap between these two vocabularies diminished. Decreasing the gap was a result of an increase in the students' performance on the controlled active vocabulary task. The increase in the students' ability to actively use their passive vocabulary is probably the result of the many opportunities they had, throughout the school year, to actively use the vocabulary they acquired within formal and informal settings. In addition, a highly significant correlation was found between the passive vocabulary and the controlled active vocabulary, which is somewhat strengthened as acquisition time increases.

The results did not yield any statistically significant increase in the level of lexical sophistication after one year of Hebrew instruction in high school. Two explanations were offered for this finding. First, that one year of instruction is not sufficient for producing an increase in lexical sophistication. The second explanation has to do with the limited number of words used in studies of passive vocabulary.

Results showed very significant differences between the different levels of lexical sophistication. These differences were even greater between the first two levels of lexical sophistication (basic words) and the second two levels (advanced words), which were based on teachers' evaluations of the words' lexical sophistication. Furthermore, the findings indicated that as the level of lexical sophistication increased, the performance of the students decreased. These findings prove that the teachers' evaluations serve as a valid index for determining the level of sophistication of words, as found in studies on other languages.

Instruction of vocabulary should be planned according to the levels of lexical sophistication, or the difficulty level of the words. Skilled teachers with many years of teaching experience can help construct lists of words classified by difficulty. Additionally, words from each of the difficulty levels can be incorporated with each age group of instruction. As age increases, more words from the advanced groups of words should be incorporated.

Ultimately, educators ought to select texts that align with the proficiency levels of their students. These instructional materials can include words from different levels of difficulty: On the basic level—more basic than advanced words; and on the higher levels—more advanced than basic words. A gradual increase in the level of lexical sophistication makes the process of vocabulary development more efficient, and ensures progress on the well-established axis of language acquisition—from the simple to the complex.

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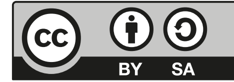

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The Role of Phonesthemes in EFL Learners' Word Acquisition

Abstract

Phonesthesia is one of the counterexamples of the arbitrariness of human languages. Although an individual word still appears arbitrary, a group of words bearing the same sound pattern might share similar meaning. This study investigated phonesthesia as a route to improving word acquisition. First, by comparing the guessing accuracy of phonesthemic versus prosaic words, we found phonesthemic words were significantly guessed better, suggesting EFL learners' sensitivity to English phonesthemes prior to explicit instruction. Phonesthemes provide hints for learners trying to ascertain the meaning of an unknown word. However, according to the participants' self-report, such sensitivity seems to lie somewhere in between pure clang association and genuine phonesthemic association. In another experiment, we examined the effect of phonesthemic knowledge, induced by explicit instruction, on the retention of phonesthemic words. The experimental group was taught 12 English phonesthemes while the control group was not. It was revealed that learners equipped with phonesthemic knowledge could retain phonesthemic words significantly better over an interval. We argue this is due to an extension of the lexical network in learners' minds. The second experiment further verified the facilitative role of phonesthemes in word retention. It is recommended that EFL teachers raise learners' attention to phonesthesia, which may potentially assist in word learning.

Keywords: phonestheme; sound symbolism; word learning; word retention

Sound symbolism is an exception to the long-held belief about the arbitrariness of linguistic signs. In recent years, de Saussure's (1983) proposition that "the bond between the signifier and the signified is arbitrary" (p. 62) has been constantly questioned. In the lexicons of many natural languages, there are words whose meanings are at least partially connected with their phonological

forms. Phonestheme is one example, which has been found in English (Firth, 1930), Swedish (Abelin, 1999), and Austronesian languages (Blust, 2003).

Phonestheme is operationally defined as the association of a sound pattern with a particular meaning. Monomorphemic words sometimes show form-and-meaning correspondences beyond the level predicted by chance (Bergen, 2004). For example, in English, word-initial *gl-* tends to occur in words related to light or vision such as *glitter*, *glimmer*, *glisten*, *gleam*, *glory*, *glow*, *glare*, *glance*, *gloss*, etc. Such sound-meaning pairings only have a predictive, not decisive effect on the meaning of a word and therefore are traditionally not considered compositional morphemes. Unlike morphemes whose meanings can be attested in every word containing them, phonesthemes can only be found in a limited group of words. *Glue*, *globe*, and *glove* share the consonant cluster /gl-/ as well, but are in no sense related to light or vision.

Empirical studies on English phonesthemes have predominantly focused on their psychological reality in native speakers. Using neologisms as stimuli, research has demonstrated speakers would interpret and produce unknown words in the exact pattern predicted by the phonesthemes in their language (Hutchins, 1998; Mueller, 2017). This finding refuted to the argument that phonesthemes are mere coincidences in the lexicon, because they do participate in the coinage and interpretation of new words. Another branch of psycholinguistic studies looked into how phonesthemes are represented and processed in speakers' minds. Priming tasks revealed that phonesthemic words demand less processing burden than words that are only semantically or orthographically related, and this tendency is alike to that reported for morphemes (Bergen, 2004). This means phonesthemes participate in language processing just like morphemes.

With the advent of corpora, scholars are also able to validate old phonesthemes, identify new phonesthemes and attach meaning to them from a statistical perspective. The results of these studies agree with each other on general. For instance, most of them found words containing a common phonestheme indeed exhibit greater relatedness than words selected randomly from a corpus (Otis & Sagi, 2008). However, it should be noted that different studies applied different mathematical models ranging from mutual information (Drellishak, 2006) to pairwise semantic similarity (Abramova & Fernández, 2016), so they provide slightly different answers as to which phonesthemes are statistically significant. For example, *tw-* is a significant phonestheme according to the criterion of Gutierrez et al. (2016), but not to Pimentel et al. (2019). The number of verified phonesthemes also differs according to the strictness of the applied standard. The study of Abramova et al. (2013) only generated six statistically significant phonesthemes while Liu et al. (2018) generated 30.

The role of phonesthemes in word acquisition, then, is still an underexplored topic. Phonesthemes have been found to scaffold word learning of native English speakers. Natives are able to produce better definitions for phonesthemic words

compared with the prosaic counterparts and recognize the meanings of phonesthemic words better (Parault & Schwanenflugel, 2006). This effect can be enhanced by the assistance of useful context (Parault & Parkinson, 2008).

Similarly, Zohrabi et al. (2014) suggested Iranian EFL learners can match unknown phonesthemic English words with the correct Farsi rendering better, indicating the sensitivity to phonesthemes in non-natives as well. However, this study does not report to have controlled for the influence of clang association. Clang association refers to the clustering of words bearing the same sound (Meara, 1983). In the study, participants were shown a phonesthemic word and required to choose one Farsi definition out of three. Participants would tend to choose a definition which contains a word phonologically (and therefore also orthographically) similar to the target word.

Sensitivity to English phonesthemes *tr*- and *fl*- is also attested in French, Spanish, and Macedonian speakers (Mompean et al., 2020). This is probably because the participants' native languages also have sub-morphemic items which seem to be associated with a particular meaning (Mompean et al., 2020). It is left unresolved, then, whether Chinese EFL learners can perceive English phonesthemes as well, because phonesthemes are more often reported in Indo-European and Austronesian languages, while the evidence of their existence in Mandarin Chinese and other Sino-Tibetan languages is scarce.

In terms of the effect of instruction on phonesthemes on word acquisition, to the best of our knowledge, there is little research addressing this topic, although such instruction can be very beneficial to EFL learners. First, English phonesthemes are not anecdotal but ubiquitous. A quick examination of Hutchins's (1998) list of 145 phonesthemes can reveal that almost every word-initial consonant cluster had been proposed by at least one scholar as carrying meaning association. Also, many monomorphemic words of Germanic origin are phonesthemic (He, 2002). They are relatively difficult to learn due to their indivisibility; learners must memorize the form-meaning correspondence as a whole. Phonesthemes, then, "provide a 'hook' for word learners trying to ascertain the meaning of an unknown word" (Parault & Schwanenflugel, 2006, p. 344).

Second, English phonesthemes are more productive than we may expect. Although one phonestheme may show different degrees of productivity due to the differing criteria on what qualifies as associated meaning, and different phonesthemes are, of course, productive to different extents, studies agree in general that the majority of English phonesthemes can reach >33% productivity (e.g., Bowles, 1995). That is, among words with the phonesthemic sound symbols, more than one third of them also contain the corresponding associated meaning. If a looser criterion is employed, this percentage can even rise to a striking 64% (Williams, 2021). Therefore, if phonesthemes were proved

conducive to word acquisition, EFL learners can apply phonesthemic knowledge to a fair number of words.

Based on the research gaps, the current study poses the following questions:

1. Are Chinese EFL learners sensitive to the sound-meaning connection of English phonesthemes without instruction?
2. After explicit instruction on English phonesthemes, can phonesthemic knowledge aid in EFL learners' word retention?

Methodology

Two experiments were devised to approach research question 1 and 2 respectively. In Experiment 1, by comparing the probability of participants choosing the correct definition for a phonesthemic word versus a non-phonesthemic word, we tried to assess EFL learners' sensitivity to English phonesthemes. Experiment 2 explored whether phonesthemic knowledge, induced by explicit instruction on English phonesthemes, improves retention of phonesthemic words. We taught the experimental group 12 English phonesthemes and tested whether they retained phonesthemic words better in memory over an interval.

Experiment 1

Participants

Participants in Experiment 1 were 49 non-English major undergraduates (21 males and 28 females) whose mother tongue was Mandarin Chinese. All of them had passed the College English Test Band 6 (CET-6), which required a minimal vocabulary size of 5,500 (*Syllabus*, 2006). Having learned English for at least 12 years, the participants were deemed advanced learners. The rationale for selecting advanced learners was that since phonesthesia is a conventional mapping due to recurrent sound patterns in the lexicon (Cuskley & Kirby, 2013), advanced learners who have a larger vocabulary tend to have more exposure to the patterns, making them more likely to recognize English phonesthemes, if it were possible. Moreover, to exclude the possibility that a participant was already aware of the form-and-meaning connection in phonesthemes, a brief interview conducted after the guessing test (see Experiment 1, Procedure & Instruments) revealed none of them had heard about the term *phonestheme* or received any instruction on it. Participation was voluntary, and each participant received a small compensation.

Stimuli

Stimuli in Experiment 1 consisted of 60 words, among which 24 were phonesthemic target words, 24 were non-phonesthemic target words, and 12 were fillers.

Drawn from Shipley's (1955) *Dictionary of Early English* and MacKay's (1879) *The Lost Beauties of the English Language*, all target words were obsolete English words that had "dropped from general use" (Shiply, 1955, p. ix). Obsolete words were employed to rule out any possibility that the participants had prior knowledge of them while at the same time ensuring authenticity.

To retrieve a collection of phonesthemic words from the dictionaries, previous research which statistically validated the reality of particular phonesthemes was reviewed (see the first section of the article). Twelve phonesthemes that have statistical evidence from at least four studies were taken into our scope. We restricted the target phonesthemes to those that occupy the initial position in words because they had more statistical and psychological evidence than rime ones. Then the dictionaries were surveyed in search of words which began with one of the 12 phonesthemes and carried the corresponding associated meaning. Only monomorphemic words with one to two syllables and four to seven letters were chosen. Each phonestheme appeared twice in the set of target words. The 24 phonesthemic target words are presented in Table 1.

Table 1
List of Phonesthemic Target Words in Experiment 1

Phonestheme	Associated meaning (Hutchins, 1998)	Target word and definition (MacKay, 1879; Shipley, 1955)
bl-	"blow, swell, or inflate; be round, swollen, or globular in shape"	*bleb*: a bubble of air in water or glass
		blore: a violent blowing
cl-	"two things coming together often producing a noise"	*clenge*: clangor
		clicket: a latch of a door
dr-	"having a languid, listless quality"	*drumble*: an inert or sluggish fellow
		dretch: to linger
fl-	"rhythmic motion; characteristic motion of liquid or gases"	*flabel*: to fan
		fleam: to flow
gl-	"light or vision, something visually salient"	*glaik*: a flash of strong light
		gledy: glowing hot

Phonestheme	Associated meaning (Hutchins, 1998)	Target word and definition (MacKay, 1879; Shipley, 1955)
gr-	"deep-toned, complaining, or threatening noise"	*grame*: to cause anger and grief
		grot: to bewail
scr-/skr-	"unpleasant sound"	*scrannel*: harsh, unmelodious
		scriek: to scream
sn-	"nose or breathing"	*snirt*: to laugh in a suppressed manner
		snite: to wipe the nose
st-	"firm, upright, regular, or powerful"	*staddle*: a foundation
		stith: unyielding, strong
str-	"forceful action in a line; something linear"	*streck*: straight
		streek: to stretch
sw-	"oscillate, undulate, or move rhythmically to and fro"	*swither*: to be uncertain or undecided
		swang: to swing
tw-	"turn, distort, entangle, oscillate"	*twirk*: to twirl
		twage: to tweak

The 24 non-phonesthemic target words were randomly extracted from the two aforementioned dictionaries. They were similar in length to their phonesthemic counterparts, but did not contain any sound symbol that was proposed to be phonesthemic.

The other 12 words served as fillers. Taken from *A Frequency Dictionary of Contemporary American English* (Davies & Gardner, 2010), they also had similar length to other stimuli and the frequency of the words' roots ranked 4,000th to 5,000th in American English. Words in this frequency range were thought to be mostly known by the participants, whose vocabulary size was required to reach 5,500 (*Syllabus*, 2006). The addition of familiar words aimed at enhancing the meaningfulness of the multiple choice test mentioned below, otherwise the participants might become reluctant to continue after making guesses about definitions of apparently unknown words.

Procedure and Instruments

Each participant first took a multiple choice guessing test to assess their sensitivity to the 12 target English phonesthemes. The 60 stimuli were presented in random order. Every word appeared along with four possible definitions, one being the correct answer and the rest three being randomly picked out from

Oxford English Dictionary (Oxford University Press, n.d.). The dummy options shared the same part of speech as but were not in any sense semantically connected to the intended answer. To preclude the potential influence of clang association (i.e., association of phonetically similar but semantically unrelated words, e.g., *reflect-effect*), if the four definitions had a word that shared the same onset consonant with the stimulus, it was replaced with a synonym or paraphrased. For example, the correct definition of *grame* was not presented as "to cause anger and *grief*" but "to cause anger and *bitterness*." Moreover, any words whose root was not one of the 5,000 most frequent words in *A Frequency Dictionary of Contemporary American English* were paraphrased with frequent words so that the participants would encounter fewer problems understanding the options. The definition of *drumble*, for instance, was changed from "an *inert* and *sluggish fellow*" to "a *slow* and *stupid person*." Participants were asked to choose the definition they reckoned to be the most appropriate. A sample of the test is given below:

grame
A. to express one's opinion
B. to be hidden
C. to cause anger and bitterness
D. to recover after illness

Participants were allowed to take as long as they want to finish the test because they are expected to utilize all their knowledge to infer the meaning of the unknown words. On average, the guessing test took around 30 minutes.

Participants were then asked to assess their prior knowledge of each stimulus against a scale created by Dale et al. (1986), where word knowledge is categorized into four levels ranging from totally no previous knowledge to a fully understanding of the word's meaning:

A. I never saw it before.
B. I have heard of it before but I don't know what it means.
C. I recognize it—it has something to do with…
D. I know it.

This was to ensure the absolute novelty of the targets to the participants. Since all of the target words are obsolete, it is very unlikely that a participant has encountered a word before or even know its meaning. Therefore, if any participant rated B or above for a target word, their answer to the corresponding question would be eliminated.

Lastly, every participant did a short interview. They were asked whether they had heard about the term *phonestheme* and whether they had received

explicit instruction on this phenomenon in their previous learning experience. If a participant had learned about English phonesthemes in school, it would be natural that they are sensitive to the phenomenon, and their response in the guessing test should be invalidated. Luckily for our purpose, none of them reported they were explicitly taught phonesthemes before.

Scoring and Data Aanalysis

Only the 48 test items based on (non-)phonesthemic target words were graded. For each correct response a participant received one point. Each participant's score was then divided by the number of valid test items to get the guessing accuracy. An independent sample *t*-test was conducted to compare the guessing accuracy of phonesthemic versus non-phonesthemic words.

Experiment 2

Participants

95 non-English-major undergraduates (25 males and 70 females) who had passed CET-6 took part in Experiment 2. None of them was also a participant in Experiment 1. Participants were randomly assigned to experimental group ($N = 44$) and control group ($N = 51$). An interview after the experiment showed they had no prior knowledge about English phonesthemes: They had not been instructed on this phenomenon, nor were they able to recognize the connection of phonesthemic patterns and their associated meaning by themselves. Every participant received a monetary reward for their participation.

Stimuli

Stimuli in Experiment 2 were a subset of the 24 phonesthemic target words in Experiment 1. From the 24 words, 12 were randomly selected to be the material for Experiment 2. Each word contained a unique phonestheme. The number of times each word being selected was counterbalanced among the participants. All 24 phonesthemic words were not used to relieve the burden of memorizing too many new words in the learning stage.

Procedure and Instruments

Experiment 2 consisted of five sections: instruction stage, learning stage, immediate posttest, interview, and delayed posttest. The experimental group went through all five sections, while the control group skipped the instruction stage and began from the learning stage.

In the instruction stage, the experiment group were introduced the phenomenon of phonesthesia and then presented a list of the 12 chosen phonesthemes, their associated meaning, some examples and a few counterexamples. A sample was presented in Table 2.

Table 2

Sample of the Material in the Instruction Stage of Experiment 2

Sound	Associated meaning	Examples	Counterexamples
gr-	complaining or threatening; negative emotion	grave, greed, grief, gross, grouse, growl, grudge, gruff grumble, grumpy, grunt	grape, great, group, grow

This was accompanied by the researcher's oral instruction while necessary. Participants were not required to memorize the associated phonesthemic meaning word for word. Instead, they were told to familiarize themselves with the example words so that they could deduce the associated meaning from the phonesthemic words in their own vocabulary. This stage lasted for 70 to 80 minutes on average, and the participants were given a one-day rest to integrate phonesthemic knowledge into their existing lexical knowledge.

In the learning stage, every participant tried to memorize 12 phonesthemic words that contained the target sound symbols. First, participants saw a word list of the 12 target words. In the list were the words' spelling, definition and a sample sentence. The definitions were extracted from the obsolete English dictionaries (MacKay, 1879; Shipley, 1955) and the sample sentences were constructed by the researcher. Any clang association words and infrequent words were paraphrased (cf. Experiment 1, Procedure and Instruments). An example is given below:

bleb
n. a sphere of air in water or glass
When fish want to get rid of excess air, they make **blebs**.

The participants were given 20 minutes and allowed to use whatever strategy they prefer, but for the participants in the experimental group, the researcher required them to apply the phonesthemic knowledge they learned a day ago. Every participant was also asked to report their previous knowledge about the target words against the Dale et al. (1986) checklist. Like in Experiment 1, if a participant rated B or above for a target word, their response to the corresponding items in the following tests would be deemed invalid.

Right after the learning stage, participants took a cloze test which measured immediate learning effect. In the test, participants saw a word bank of the 12 target words and 16 sentences each with a word removed, and were required

to insert the target words into the suitable sentence. The sentences worked as "general context." That is, they "provide clues to the [word's] meaning, although the specific characteristics of the word remain undefined" (Beck et al., 1983, p. 179). As long as they remembered the word's meaning, participants should obtain enough hints from the sentences to select the correct item. Four sentences functioned as distractors; no word fit into the blanks in them. The test lasted for 12 minutes. Below are two sample test items:

At midnight I was waked up by the _________ of the alarm.
From here the river _________ east into the ocean.
Word bank: **clenge fleam**

The cloze test lasted for 12 minutes.

This was followed by a brief interview, where we first asked every participant whether they had received instruction on phonesthemes before. If a participant was taught this phenomenon previously, they would have an advantage compared with the participants who had received no instruction. Luckily, none of them had reported previous knowledge on English phonesthemes. And we also selected nine of the participants in the experimental group and inquired their "feeling" while learning phonesthemes and memorizing phonesthemic words. We asked how they felt while learning English phonesthemes, whether such knowledge is compatible with their existing lexical knowledge and whether phonesthemes were helpful in learning new words. This was to make clear the participants' train of thought and supplement the findings based on the quantitative test scores. Note that the participants of Experiment 1 and 2 are from the same linguistic and educational background, so the results from this interview were also used to interpret the findings of Experiment 1.

Finally, to measure how well participants retained the target words in their memory, the cloze test was conducted again after a delay. The length of the delay was seven to eight days ($M = 7.21$). The test format of the delayed posttest was identical to the immediate posttest, but the exact items were completely different. For example, in the immediate cloze, the item designed for *swither* "to hesitate" is "The cellphone rang. George _________, not knowing whether to answer it." But in the delayed cloze the item designed for *swither* is "Mary _________a lot as to whether she should enter the arts or physics."

Scoring and Data Analysis

In the cloze tests, participants were given one point if they could find the correct lexeme for the suitable context; spelling and grammatical mistakes were excused. Their scores were divided by the number of valid test items to get

the accuracy. Finally, the experimental group's accuracy in the posttests was compared with the control group with an independent sample *t*-test.

Pilot Studies

A few pilot studies were conducted to ensure the validity of the instruments. First, some sentences in the material were written by the researcher, a native Mandarin Chinese speaker. Therefore, a native English speaker from the UK was employed to ensure the sentences were not awkwardly constructed. Second, we invited an extra five Chinese EFL learners of the same proficiency level as the participants to guarantee the time allocated to each task was sufficient for the participants to finish it. For example, 20 minutes was enough for the participants to memorize the meanings of 12 new words even through rote learning. Lastly, in terms of item design, the five EFL leaners also confirmed that (1) the 12 filler words in Experiment 1 were indeed familiar words to most of the participants. The addition of these words does enhance participants' confidence while taking the test. (2) In Experiment 2, participants could get full marks in the posttests when they have the words' definitions at hand, even with the presence of distractors.

Results

Experiment 1: Chinese EFL Learners' Sensitivity to English Phonesthemes

Experiment 1 intended to examine Chinese EFL learners' sensitivity to English phonesthemes. In the guessing test, we collected 24*49 = 1,176 responses for phonesthemic words and also 1,176 for non-phonesthemic words. 105 responses for phonesthemic words and 83 responses for non-phonesthemic words were deemed invalid according to the self-reports in the Dale et al. (1986) checklist. Therefore, 1,071 responses for phonesthemic words and 1,093 responses for non-phonesthemic words were taken into statistical analysis.

An independent *t*-test revealed participants were able to choose the correct definition of a phonesthemic word (M = .341, SD = .110) at a significantly higher rate than a non-phonesthemic word (M = .264, SD = .094), $t(96) = 3.716$, $p < .001$. The size of the effect is medium, Cohen's d = .75, 95% CI [.34, 1.16]. This finding supports the claim that participants can make use of the latent phonesthemic information to infer the meaning of an unknown word, indicat-

ing Chinese EFL learners can notice the sound-meaning connection of English phonesthemes without instruction.

The definition of a non-phonesthemic obsolete word was almost guessed randomly, as a one-tailed *t*-test showed no statistical difference between the observed accuracy and the likelihood of participants making the correct guess solely by luck (25%), $t(48) = 1.053$, $p > .05$. It suggests there is nothing within a non-phonesthemic word that can help a participant detect its meaning, making it more reasonable to attribute the high guessing accuracy of phonesthemic words to the existence of phonestheme.

Further Precluding the Influence of Clang Association

As stated above, an obsolete word might activate a phonologically (and therefore orthographically) similar present-day word in learners' mental lexicon, a phenomenon known as clang association. In Experiment 1, we had partly controlled for its effect by replacing any word in the four options which shared the same onset phonestheme as the target word with a dissimilar synonym. But there was still a possibility that participants' choice of the right option was based on mediated priming (Parault & Schwagenflugel, 2006). For example, one might have chosen the correct definition of *streck* "having no curve" because of its formal resemblance to the present-day word *stretch*, not because they had discovered anything special about *streck* itself. As it is technically impractical to manipulate participants' train of thought, the clang association strength of phonesthemic and non-phonesthemic words was then compared with Orthographic Levenshtein Distance 20 (OLD20).

OLD20 represents the average Levenshtein distance between a particular word and its 20 closest orthographic neighbors in the English lexicon. The minimum being 1, a lower OLD20 value indicates a denser neighborhood (Yarkoni et al., 2008), making the word more prone to clang association. The OLD20 scores of each obsolete word in the guessing test were examined using the Wuggy program (Keuleers & Brysbaert, 2010). An independent sample *t*-test showed no effect of word type on OLD20 value, $t(38) = .642$, $p > .05$. The phonesthemic words ($M = 1.890$, $SD = .239$) and non-phonesthemic words ($M = 1.831$, $SD = .337$) have an orthographic neighborhood of similar density. If the results of the guessing test were to be influenced by clang association, it is reasonable to expect a similar level of mediated priming effect across all target words. Clang association is therefore unlikely to have contributed to the differing guessing accuracy of phonesthemic and non-phonesthemic words.

Experiment 2: The Facilitative Role of Phonesthemes in Word Retention

Experiment 2 explores the facilitative role of phonesthemes in word retention. Prior to statistical analysis, participants' rankings of words based on the Dale et al. (1986) checklist were used to eliminate target words for which participants had previous knowledge. This accounted for 8.9% of the data.

In the immediate posttest, an independent sample *t*-test revealed the experimental (M = .859, SD = .139) and control (M = .857, SD = .128) groups obtained similar scores, $t(93)$ = .080, p > .05. Both groups answered 10–11 of the questions correctly. With or without the instruction on phonestheme, all participants were able to reach a nearly perfect score in the immediate cloze test.

The results from this test revealed three facts. One, the mean scores of the experimental and control groups are similar, indicating there is no inter-group difference in the participants' memorizing ability. Both groups were able to memorize the target words equally well within the given time, which verifies the randomness of group assignment. Participants in the experimental group per se were no better word learners than the control group. Two, the standard deviations of both groups' scores are low. It means intra-group difference in memorizing ability is also negligible. No participant performed conspicuously poorly in the learning stage. This has dispelled a previous concern that an online experiment might not be taken seriously. Since all participants are similarly advanced English learners, this finding proves they had all done their best trying to memorize the target words. Lastly, both groups reached a relatively high accuracy, which shows the 20-minute learning time is sufficient enough to allow every participant, regardless of their learning strategy, to memorize the target words almost perfectly. Overall, results from the immediate posttest are proven to be a valid benchmark against which the degree of attrition can be measured in the delayed posttest.

In the delayed cloze, by contrast, the experimental group performed significantly better than the control group. While the control group (M = .457, SD = .255) experienced a sharp memory attrition over the interval, leading their test score to a 46.7% decrease, the experimental group (M = .597, SD = .245) managed to retain their memory better, their score decreasing by only 30.5%, $t(93)$ = 2.726, p < .05. The size of the effect of instruction on delayed cloze test results is medium, Cohen's d = .56, 95% CI [.14, .97]. While the immediate cloze test proved both groups to have memorized the target words equally well, after the interval, the experimental group who had received instruction on phonestheme outperformed the control group by 34.7%. It lends evidence to the claim that phonesthemic knowledge can aid in EFL learners' word acquisition by promoting retention. The target words are significantly better retained in the memory of the participants in the experimental group.

Discussion

Non-arbitrary Form-to-meaning Link in Phonesthemes

The findings from Experiment 1 strongly support the claim that the link between form and meaning is not completely arbitrary (Dingemanse et al., 2015). Since the participants were only given decontextualized words to infer their meaning, it is only reasonable to attribute the phonesthemic words' high guessing accuracy to a feature intrinsic to the words themselves. In this experiment, we have tried to preclude the influence of every factor except for phonestheme which might guide the participants to a closer guess. The potential effect of clang association had been ruled out by two means: (1) Definition words that contain the same phonestheme as the stimuli were replaced with a synonym, and (2) the clang association strength was proven to be similar across all stimuli. Every target word, phonesthemic or not, should prompt a similar degree of clang association in the participants' mental lexicon. Thus, we argue clang association and orthographic neighboring cannot explain why participants guessed phonesthemic words significantly better, and that the effect of phonestheme cannot be reduced to an entirely sound- or spelling-based association. Phonesthesia should be treated as an independent phenomenon instead of a linguistic coincidence or a byproduct of clang association.

Sensitivity to English Phonesthemes

Experiment 1 also provides preliminary evidence for the psychological reality of English phonesthemes in Chinese EFL learners. As the participants scored higher on phonesthemic words on average, it proves they were able to perceive this phenomenon without prior instruction. This finding echoes previous experiments which attested sensitivity to English phonesthemes in native English speakers (Bergen, 2004) as well as French, Spanish, Macedonian (Mompean et al., 2020) and Korean EFL learners (Mueller, 2017). The present experiment is the first to find spontaneous recognition of English phonesthemes in participants whose mother tongue is a Sino-Tibetan language, where phonesthesia has not been reported. That L1 plays only a minimal role in affecting language learners' sensitivity to phonestheme seems to corroborate the claim that phonesthesia is conventional (Cuskley & Kirby, 2013). The form-to-meaning mappings are more likely to be a result of recurrent phonetic patterns in the lexicon of a particular language. Learners from whatever language background,

if fluent enough in English, are all able to recognize this phenomenon through repeated encounters with phonesthemic words.

However, whether such implicit sensitivity can be categorized as real phonesthemic knowledge remains a question. In the interviews of Experiment 2, a few participants reported they could recognize the phonetic and semantic similarities between some of the phonesthemic words. For example, one said they were aware that "*glitter*, *glisten* and *glimmer* have both similar appearance and similar meaning," but other *gl*- phonesthemic words like *glow* and *gleam* are not incorporated in the system, although *glow* and *gleam* were not new words to them. Sensitivity to the form-and-meaning link between some other words was also reported, but none of those could qualify as bona fide phonesthemic knowledge in that such sensitivity is only limited to two or three items. It seems that the form-and-meaning similarity between some of the phonesthemic words (when they are similar *enough*) is identifiable, but learners cannot pin down the exact word component (i.e., phonestheme) which contributes to such similarity or generalize this tendency to other words with the same component. Such sensitivity is, at best, an "implicit evaluation" of English phonesthemes rather than a "conscious elaboration" of the form-and-meaning link (Deconinck et al., 2010, p. 7).

In light of the self-reports of participants in Experiment 2, we argue EFL learners cannot form a full-fledged recognition of English phonesthemes. What is more likely to have happened, then, is that EFL learners can find a lexical association which lies somewhere in between pure clang association and genuine phonesthemic association. This association is not entirely form-based like *reflect*-*effect*, but it is also not large enough to include multiple (more than three in terms of our inspection) words that have the form-meaning correspondence. The question of whether it qualifies as phonesthemic knowledge needs further psycholinguistic research on whether EFL learners perceive English phonesthemes in the same way as native speakers. If EFL learners could show similar behaviors in psycholinguistic tasks (e.g., priming task) as natives, we can be more confident that phonesthesia is a psychologically real phenomenon in EFL learners' minds as well.

Scaffolding Effect of Phonesthemic Knowledge on Word Meaning Retention

Overall, Experiment 1 showed that Chinese EFL learners are able to mobilize phonesthemic information when encountering an unknown word. Phonesthemes, then, may be a useful lexical property from which EFL learners can draw hints to infer possible word meaning. As Hulstijn (2001) argues, "If a new word appears to the learner as having a form unrelated to its meaning,

it will need more attention and mental elaboration than if it has a transparent appearance" (p. 262). Therefore, phonesthemic words, having form-to-meaning transparency, might require less attention and mental burden of learners trying to memorize them. This contributes to more efficient learning and more endurable memory. Even in the absence of any other type of clue, phonesthemes still provide a "hook" for learners trying to deduce the meaning of an unknown word (Parault & Schwanenflugel, 2006, p. 344). In real learning situations where no options are given, the chance of guessing the meaning of a word correctly is very slim. But with phonesthemic knowledge in mind, learners can narrow down the possible meaning out of an infinite number of options.

The results from the delayed cloze test in Experiment 2 lend further support to the potentially facilitative role of phonesthemic knowledge in word retention. Participants in the experimental group, equipped with phonesthemic knowledge, underwent a slighter degree of memory attrition over the interval and, as a result, performed significantly better in the delayed test compared with the control group.

In terms of how phonesthemic knowledge improves word retention, we argue this is due to an extension of the lexical network in learners' mental lexicon. The interviews in Experiment 2 showed that the participants, though being advanced EFL learners, could only establish a word network of a few phonesthemic words, if it were possible at all. Explicit instruction on phonesthemic knowledge, then, helps to extend such a small, implicit lexical network to a larger network which includes more phonesthemic words in the learners' lexicon. Learners will be explicitly aware that the meaning of the words within a particular phonesthemic network applies to other members of the set as well, which reinforces the phonesthemic connection (Benczes, 2020). It will then become easier to capture new stimuli and incorporate them into the network. Words joined in the set, connected with other words, would be less susceptible to decay than words stored separately because they can also be retrieved through other words within the same network.

This finding resonates with processing models. According to the Levels of Processing (LOP) model, deep processing (e.g., semantic processing) is more immune to rapid memory attrition than shallow processing (e.g., phonetic and orthographic processing) (Craik & Lockhart, 1972). Since phonesthesia involves analysis of a word's meaning connection with other lexical items, it fosters a deeper-level information processing than rote learning and therefore makes the word more likely to be retained in memory. The Transfer Appropriate Processing (TAP) model differs from the LOP model in that it proposes semantic processing is not superior to structural processing in nature; instead, "the value of particular acquisition activities must be defined relative to particular goals and purposes" (Morris et al., 1977, p. 528). In other words, learning strategies which emphasize semantic elaboration result in better recollection

of meaning, while learning strategies which emphasize structural elaboration result in better recollection of form. According to the TAP model, phonesthemic knowledge prompts learners to evaluate the form as well as the meaning of a new word. Words memorized in this way should be better retained in terms of both form and meaning. However, it should be noted that the cloze test in Experiment 2 only assessed meaning recall, while form recall was not investigated in our study. So, at this stage it is only safe to conclude that phonesthemic knowledge improves meaning retention of unknown words based on our results. Whether it also facilitates form retention remains uncertain. This is exactly the question proposed by the Type of Processing Resource Allocation (TOPRA) model. The TOPRA model argues the processing resources available to a learner are limited, so semantic elaboration *improves* learning of semantic properties of words but *inhibits* learning of structural properties of words, and vice versa (Barcroft, 2002). As Experiment 2 showed phonesthemic knowledge improves meaning retention of new words, it could be at the expense of form retention. That is, learners equipped with phonesthemic knowledge might allocate too much attention to word meaning so that they would remember word forms less well than normal learners. Yet the opposite is believed to be true. Applying phonesthemic knowledge, learners do not cope with a word's form and meaning separately. Instead, they are encouraged to map them together. It is not an exclusively form-oriented or an exclusively meaning-oriented learning strategy. There would be at least weaker dispersion of learners' attentional resources. Future research can explore whether phonesthemic knowledge really induces learners to deal with form and meaning at the same time or it targets word meaning more.

Phonestheme-motivated Teaching Approach

Given that phonesthemes are proved facilitative in word meaning retention, the pedagogical implications of such form-meaning relationship are discussed. we propose that a phonestheme-motivated teaching approach should not force learners to remember the associated meaning of each phonestheme by rote. Instead, language teachers are recommended to raise learners' awareness to the presence of phonesthemes in English lexicon and help them transfer the "implicit evaluation" of phonesthemes to a "conscious elaboration" of such form-to-meaning mapping (Deconinck et al., 2010, p. 7), as was done in experiment 2. This is not only because rote learning isolated fragments of knowledge from context (Mayer, 2002) and is thus argued to be inferior to other supposedly more efficient word learning strategies (Nakamura, 2000). More importantly, phonesthemes play a predictive, rather than decisive, role in the meaning construction of a word. It is not rare that a word contains a phonestheme but does

not carry the proposed associated meaning. *Great*, for example, is not semantically connected to the phonesthemic meaning of *gr*- "deep-toned, complaining, or threatening noise." It even lies at the exact opposite end of the complaining spectrum. Also, how the associated phonesthemic meaning is integrated in a word's lexical meaning is subjective, depending on language users' interpretation. It is obvious that the meaning of *gl*- "light and vision" is perfectly integrated in the meaning of *glow* "give out light." But for *glass* the meaning of phonestheme *gl*- becomes more obscure. Therefore, learning phonesthemes by rote might cause learners to overemphasize the contribution of phonestheme to a word's meaning. An inductive teaching approach might be more efficient for phonesthemes. In other words, learners are trained to be more sensitive to the form-and-meaning similarities among words already in their vocabulary, and encouraged to derive a form-to-meaning mapping pattern based on extant lexical knowledge.

Morphological Status of Phonesthemes

Lastly, the question of whether phonesthemes should be treated as normal morphemes is of concern. Traditionally, morphemes are considered the smallest units carrying meaning. Although phonesthemes also involve a pairing of form and meaning, they differ substantially from morphemes. First, phonesthemes are non-compositional. Removal of the phonestheme from a word only results in a sequence of meaningless letters. It would be problematic to argue that *immer* contributes to the meaning of *glimmer.* Another difference is that morphemes are defined by contrast while phonesthemes by recurrent association (Blust, 2003). A single case is sufficient to identify an isolated morpheme. On the other hand, since phonesthemes can only be identified through recurrent phonetic patterns, multiple examples are necessary to support the existence of a phonestheme. Most scholars maintain phonesthemes are sub-morphemic components of a word (Blust, 2003). Yet some argue that a phonestheme is "a derivational morpheme in its own right" (Rhodes & Lawler, 1981, p. 325).

The present study does not intend to make any theoretical assertions. Nevertheless, it does show morphemes and phonesthemes exhibit similarities in terms of processing. We found phonesthemic knowledge improves advanced EFL learners' retention of phonesthemic words. This resonates with previous studies which demonstrated that morphological knowledge facilitates advanced EFL learners' acquisition of morphologically complex words (Sukying, 2020) and increases immature native speakers' ability to infer the meaning of an unknown complex word (Baumann et al., 2003). The instruction on both morphemes and phonesthemes is beneficial for the acquisition of the corresponding type of words. Moreover, there is also evidence that native English

speakers perceive and store phonesthemes in their lexicon in a manner much alike to normal morphemes (Bergen, 2004). It seems that phonesthemes also participate in language processing and language acquisition like morphemes, although they are non-compositional.

Conclusion

The present study generated two major findings. First, advanced Chinese EFL learners are generally sensitive to the phonesthemic (i.e., both phonetic and semantic) links between some of the English words bearing the sound symbol. They can also apply this tendency to an unknown word to infer its possible meaning. However, such sensitivity seems to lie somewhere in between clang association and genuine phonesthemic association, as the lexical networks established by learners in this way only include a few phonesthemic items. Second, phonesthemic knowledge, which can be instilled into learners through explicit instruction, significantly improves word retention over a one-week interval. This is possible because explicit instruction enlarges the phonesthemic networks and reinforces the connection between members in the networks. Therefore, although EFL learners might not recognize this linguistic feature systematically, phonesthesia indeed plays a critical role in word learning and is a useful resource for promoting word retention. Given the ubiquity of phonesthemic words in the English lexicon, language teachers are recommended to raise learners' awareness of this phenomenon and give learners explicit instruction on the form-to-meaning mapping between phonesthemes when appropriate. This could arguably promote the meaning retention of unknown phonesthemic words significantly. Also, in teaching phonesthemes, it may be more efficient to encourage learners to derive the form-to-meaning mappings on their own instead of forcing learners to memorize a list of English phonesthemes by rote.

One limitation of the present study is that we did not investigate how English phonesthemes are processed and stored in Chinese EFL learners' minds, and therefore we could not confirm whether the sensitivity to English phonesthemes exhibited in Experiment 1 qualifies as real phonesthemic knowledge. It is only certain that the phonesthemic links between part of the phonesthemic words in the learners' lexicon are spontaneously identifiable. Future studies could take a psycholinguistic perspective. If Chinese EFL learners are found to process English phonesthemes in a pattern similar to native speakers, it will be evidence that EFL learners' recognition of English phonestheme is systematic, or at least native-level.

Another limitation is that in Experiment 2, the posttest assessed meaning retention, while form retention was not examined. According to the TOPRA model, when a learning strategy allocates learners' attention to the semantic aspect of the word, promoting meaning retention, it may at the same time hinder form retention because the total amount of mental resource available to a learner is limited. Although we argue phonesthemic knowledge is unlikely to impair form retention since it targets form and meaning holistically, such possibility cannot be completely wiped out. Future studies could apply a test format which examines form as well as meaning retention, and see if phonestheme knowledge also assists in learners' form retention of new phonesthemic words.

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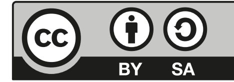

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The Cultural Component of Selected LSP Textbooks in the Area of Business and Their Potential for Developing Intercultural Competence

Abstract

The article aims to investigate the cultural component of selected LSP textbooks in Business English, German, French and Spanish from the point of view of their potential for developing intercultural competence, which is indispensable in business communication (Stegu, 2017). The study analyses the cultural content of twenty textbooks as well as activities aimed at developing and practising intercultural skills. As the results show, they include different cultural information and focus on developing different skills. Moreover, they mostly present such information implicitly rather than explicitly, for example, model business letters show how business correspondence is written in the target language culture, without making explicit statements on politeness in that culture. It is thus the teacher's role to select the textbooks, draw the learners' attention to the cultural elements, and to supplement the books with other materials.

Keywords: LSP textbooks, business language, intercultural communication, intercultural competence

The study investigates the cultural component of selected Business English, Business German, Business French and Business Spanish textbooks from the point of view of the intercultural competencies they can help to develop. Undoubtedly, in today's globalised world many companies are international or do business with foreign partners. Bartosik-Purgat (2010, p. 32, as cited in Zenderowski & Koziński, 2012, p. 21, the author's translation) defines international business as "every manifestation of economic activity taken up by a company (or individuals not being legal entities) which is connected with the sale or purchase (also as an intermediary) of products (or services) abroad."

It is thus a very broad notion, as it can cover a variety of products and services, selling which as well as the after-sales service may require specific intercultural communication skills. Moreover, in international organisations, especially joint ventures, "culture(s) are negotiated rather than fixed" (Bargiela-Chiappini & Nickerson, 2003, p. 6) and, in fact, the multiple cultural membership of their employees can result in multicultural identities (Bargiela-Chiappini & Nickerson, 2003, p. 6). Consequently, international business communication constitutes a highly complex field of research, which covers an intricate array of theories of culture and communication as well as "[t]he added dimension of the business context" (Bargiela-Chiappini & Nickerson, 2003, p. 3).

One should be aware of the differences between the native culture and those of the foreign business partners, customers or, in an international company, foreign colleagues, and be able to behave appropriately. If intercultural communication aims at the establishment of partnership relations, the process of adjustment should be to some extent symmetrical. Thus, the knowledge of negotiating styles characteristic of different countries, as well as the dress code, attitudes towards time, ways of addressing business partners, the exchange of gifts, etc. should be applied in business negotiations (Zenderowski & Koziński, 2012, p. 56).

Culture can be defined as "the meaningful way in which people act and interact in their social contexts with one another" (Moll, 2012, p. 4). In a similar vein, Gibson (2002, p. 7) regards it as "a shared system of attitudes, beliefs, values and behaviour." Even though in the globalised world a culture consisting of globally shared behaviour has formed (Moll, 2012, p. 16), cultures have largely retained their individuality and the shared conduct is not equally distributed and "[u]nderneath this layer of shared practices, there remains a vast richness of norms and expectations" (Moll, 2012, p. 17).

This begs the question of whether intercultural competence could be learnt from textbooks at all. Certainly, no textbook can contain all the components of competence even in a single culture, from knowledge of the country and its social context, through various norms of behaviour and communication, to values, beliefs and attitudes. However, as will be explained below, developing intercultural competence is a complex process involving a number of skills and attitudes. Therefore, textbooks can equip learners with some necessary information and a basis for reflection, so that they can further develop their intercultural communication skills in a real-life context more closely related to their language needs. It can thus be assumed that, even though intercultural competence cannot be learnt from textbooks alone, the cultural component of textbooks can be very useful for developing it.

Finally, despite the unquestionable status of English as the language of international business (Bargiela-Chiappini & Nickerson, 2003, p. 4), due to the internationalisation of business, in Europe "[...] a business interaction is rarely a monolingual event" (Vandermeeren, 1999, p. 276). Languages other

than English also play a role in intercultural business meetings, for example, a short switch can serve to solve a problem, other languages can be used to hold a "small group discussion," to build solidarity (Poncini, 2003, pp. 29–30) and, in general, to "facilitate communication and goal achievement" (Poncini, 2003, p. 30).

In fact, while English is the dominant business language in the world, German, French and Spanish are also useful in business, especially in Europe (Schroedler, 2018, pp. 240–241). In terms of the GDP, the German-speaking economies (Germany, Austria and partly Switzerland) show the most economic activity on the European market, whereas the economic output of the European French-speaking population (i.e., France and parts of Belgium and Switzerland) is similar to that of the English-speaking one. The GDP of the 12 largest economies of the Spanish-speaking world (Argentina, Bolivia, Chile, Colombia, Cuba, the Dominican Republic, Ecuador, Guatemala, Mexico, Peru, Spain and Venezuela), which "account for over 90% of the world's Spanish-speaking population and for over 95% of its accumulated GDP output" (Schroedler, 2018, p. 239) rose considerably between 1995 and 2015. In addition, the German-speaking population (Germany, Austria and part of Switzerland) has the highest individual purchasing power of these four groups, while in the 2006–2016 decade the individual purchasing power of the French-speaking world (France as well as the French-speaking populations of Belgium, Canada, Switzerland, Algeria, Cameroon, Congo, Côte d'Ivoire, Morocco, Senegal and Tunisia) exceeded that of the English- and the Spanish-speaking population (Schroedler, 2018, p. 241). The data are supported by interviews with experts: knowing the business partner's language is a sign of respect, facilitates the sale of products and prevents missing opportunities (Schroedler, 2018, pp. 246–251). Therefore, apart from English, other languages should also be studied, as they increase the number of business opportunities and facilitate communication and, together with the language, one should also become familiar with the country's culture. For this reason, the present study focuses on business LSP textbooks in the four languages mentioned above, as they can all be useful in international business.

However, it must be remembered that this is an exploratory study, as the cultural component of LSP Business (not only Business English) textbooks has hardly been investigated yet, an exception being Gajewska (2023), who analysed the cultural components of selected LSP French, Spanish and Italian textbooks in the area of business. Even though Romanowski (2016) proposed a comprehensive evaluation sheet for Business English textbooks, he did not focus on culture but covered all the features a Business English course book should possess, including its design and organisation, the language content (vocabulary and grammar), skills and tasks, methodology, etc. and, certainly, cultural themes and activities raising students' cultural awareness and developing their intercultural communicative competence. Yet, they are only presented

in the form of a list of questions (e.g., "Is there cultural content added in the texts/activities?" Romanowski, 2016, n.p.) instead of any particular examples. On the other hand, some studies have been conducted on the cultural elements in general English textbooks, for example, Amerian and Tajabadi's (2020) evaluation of the *New Headway* series and Sobkowiak's (2021) analysis of EFL textbooks used in Poland, especially ones preparing secondary school students for the Matura (Polish A-level) examination. Piwowarczyk (2016) provided an overview of the cultural components of six textbooks, one in each language, for English, German, French, Russian, Spanish and Italian. In fact, Piwowarczyk's study did not even focus on one type of textbooks, as she presented an English tourism textbook (*English for International Tourism*), a professional French textbook (*Objectif express 1. Le monde professionnel en français A1/A2*) and general German, Russian, Spanish and Italian ones; the main criterion for their choice was the fact that they were at the A1/A2 level and were used at the Cracow University of Economics (Piwowarczyk, 2016, p. 74). Therefore, while the present study provides an analysis of the cultural elements included in LSP business textbooks and the ways they are presented, it cannot yet cover all aspects of culture in this type of course books and thus perspectives of future research will be presented.

Teaching the Language of Business

By and large, business language is part of LSP (language for specific purposes), possesses a specific vocabulary and style and is used in contexts where misunderstandings can lead to financial losses. For example, the quality of business correspondence is a reflection of professionalism and competence, and unclear or inefficient correspondence can impair business relations (Ashley, 2003, p. 5). As Reuter (1997, p. 11, as cited in Stegu, 2017, p. 371) has observed, the main purpose of teaching LSP is not the memorisation of specialist knowledge, but the preparation of students for specialised oral and written communication at work. ESP students are future participants in discourse communities, who need to know the rules of the genres they are going to use, since discourse and genres are "taken-for-granted forms of conduct by which the target academic, professional, and workplace communities are constituted" (Basturkmen, 2006, pp. 11–12). It is thus vital that, in addition to terminology, learners acquire the rules of communication, which are largely a part of the target culture.

Indeed, the need for knowledge of the rules of communication in the international business community is reflected in business practitioners' expectations concerning LSP learners' as their future employees' writing. As shown by

Puvenesvary (2003, as cited in Zhang, 2013, p. 145), rather than on linguistic proficiency, in their evaluation of business students' writing, business practitioners lay emphasis on maintaining the corporate image, conforming to power relationships and the meeting of time constraints. If they paid attention to errors, it was only because of their potential impact on the corporate image. Zhang (2013) investigated the evaluation of students' business writing by international business practitioners with a view to formulating pedagogical implications for the teaching of Business English. He concludes that "[b]usiness writing should be treated from the outset as performing a business activity" (Zhang, 2013, p. 154). As the business practitioners' responses varied considerably, international business professional identities vary across contexts and, moreover, business correspondence as a genre is flexible, so writing should take into account the specificity of a particular interaction (Zhang, 2013, p. 154). This shows that practical business language skills are of particular importance to the employers themselves and should be mastered by LSP learners. Even though textbooks cannot prepare learners for all possible business contexts, they should, arguably, equip learners with basic skills which they will later develop at work and, at the same time, raise their awareness of the conventions of business communication in the target language culture. In fact, business letters are only one of the many genres of business writing, besides reports, memos, contracts, invoices, brochures, catalogues, etc. (Aguirre Beltrán, 2012, p. 81). Therefore, model business letters and phrases used, for example, in negotiations, can provide a starting point for students as future business practitioners.

However, given the international character of contemporary business, rather than native speaker competence, "what matters is the highest possible communicative effectiveness in specific situations" (Stegu, 2017, p. 369), which undoubtedly influences learners' language needs. Certainly, language needs change over time, as do one's professional duties, so teaching foreign business languages should provide learners with a basis for lifelong learning (Stegu, 2017, p. 374).

As for the design of LSP materials, including textbooks, they should familiarise students with a given genre (e.g., business correspondence). The teacher's role is to select the appropriate materials and tasks. As publishers are not usually willing to publish materials intended for a limited specialist audience, teachers and institutions have to develop materials of their own (Barnard & Zemach, 2003, p. 314). According to Barnard and Zemach (2003, pp. 316–317), the preparation of LSP materials should start with determining the needs of the learners and/or the organisation, including relevant contexts of language use (e.g., business meetings) and skills, followed by designing the syllabus and the activities. Preparing the materials is not the last stage, though, as feedback on them should be collected and, if necessary, they should be revised. Ready-made textbooks cannot be revised by the teacher, but they can select and combine them in accordance with learners' needs.

Last but not least, according to Evans (2013), while Business English textbooks contain a variety of vocabulary exercises (p. 282), they lack simulations preparing them for real-world workplaces (p. 291). Evans (2013, p. 291) also recommends "processing and producing interdependent text types, such as emails and reports" as well as "participating in speech events." However, as will be shown below, processing certain text types, though not necessarily interdependent ones, is indeed present in many textbooks. While the focus here is on the cultural component of textbooks, it may be assumed that the text types presented there are representative of the business genre used in a particular language and therefore aim to prepare learners for future participation in the business community using that language.

The Role of Culture in Foreign Language Learning and in Business Communication

As was mentioned above, business communication requires a certain level of intercultural competence. "Culture is reflected in communication; without considering cultural factors, it would not be possible to communicate successfully" (Rathmayr, 2017, p. 222). It is certainly important to know the differences between the native and the foreign culture, but this is not enough. As noted by Rathmayr (2017, p. 226), even though awareness of differences can facilitate communication, one should be cautious about attributing certain behaviours and values to all members of a particular nationality in order not to reduce them to their national affiliation. At the same time, culture is not a fixed structure, but rather "a dynamic set of conditions and a regulatory framework of interpersonal action" (Metten, 2014 n.p., as cited in Rathmayr, 2017, p. 228, her translation).

In fact, in foreign language teaching in general, cultural skills are essential, as "language and culture are inextricably intertwined" (Pulverness, 2003, p. 428). However, in English language textbooks in particular, there has been a tendency to focus on English as an international language, neglecting its cultural dimension. A possible reason is the assumption that teaching the culture of a particular English-speaking country would be irrelevant to a global audience. Yet, culture "as the expression of beliefs and values" cannot be neglected in language teaching (Pulverness, 2003, pp. 426–427).

Those underlying beliefs, attitudes and values are influenced by each country's history, tradition, etc. Following Hammerly (1982), Stern (1992, pp. 210–211) divides culture into "information (or factual) culture," which includes the average educated native speaker's knowledge of their country's history, geography, etc., behavioural culture, defined as "actual behaviour plus attitudes,

values, etc." (Hammerly, 1982, p. 515, as cited in Stern, 1992, p. 210), which is crucial for successful communication, and "achievement (or accomplishment) culture," which includes art, literature, etc. Certainly, communication in a foreign language requires predominantly skills connected with behavioural culture, but, in order not to appear ignorant, let alone offend the interlocutor with an awkward remark, some knowledge of achievement and information culture is also necessary.

In business, apart from the language and the cultural meanings expressed in it, intercultural competence in a broader sense is required. For example, differences in politeness can result in serious misunderstandings. A Russian business partner's failure to apologise for absence due to illness, which is beyond their control and does not require an apology in Russian, can irritate an Austrian much more than a language error because, to the Austrian, the Russian seems unreliable and impolite (Rathmayr, 2017, p. 230).

Moreover, the development of intercultural competence requires lifelong learning skills, which allow the learner to discover the target culture on their own. According to Byram (2008, p. 69), intercultural communicative competence includes several affective, cognitive and behavioural elements, which comprise attitudes, such as curiosity and openness to other cultures, knowledge of social practices in the native and the foreign culture, "skills of interpreting and relating," for example, interpreting a document from another culture, "skills of discovery and interaction," or the ability to acquire and use new knowledge of a culture and its practices, and "critical cultural awareness/political education," or the ability to evaluate cultural practices critically (Byram, 2008, p. 69, his emphasis). Arguably, these intercultural skills can be useful in learning the language of business. They might help one, for example, to interpret business documents in a foreign language, to observe the behaviour of business partners or to improve one's knowledge of their culture.

According to Rathmayr (2017), businesspeople need encyclopaedic knowledge of the culture of the country they do business with, including its history, geography, economics, politics, etc. However, in a globalised world, one is exposed to many cultures and ought to "develop strategies which increase the chances for successful interactions with members of as many cultures as possible" (Rathmayr, 2017, p. 237). Cultural awareness and engagement with the foreign culture make one more sensitive to possible conflict sources. At the same time, one should be aware of one's own and the interaction partner's expectations. Consequently, such strategies as questioning, summarising what has been mutually understood and emphasising the common ground are particularly useful in intercultural business communication (Rathmayr, 2017, pp. 239–240).

It can thus be concluded that, even though textbooks cannot provide all aspects of intercultural competence, they can give one at least some basic encyclopaedic knowledge about the target language culture as well as the necessary

linguistic means (for example, useful expressions) for questioning, summarising and, if necessary, resolving conflict situations. Moreover, tasks which involve reflection on one's native and the foreign culture can be helpful in developing intercultural awareness. At the same time, it must be remembered that, while some cultural information in textbooks is presented explicitly, other information is given implicitly and has to be either implicitly acquired or consciously deduced by the learner. Explicit learning involves memorising facts and results in knowledge that can be verbalised (Ellis, 2009, p. 3), whereas "[i]mplicit learning proceeds without making demands on central attentional resources" (Ellis, 2009, p. 3) and learners cannot verbalise such knowledge, though it is reflected in their behavioural responses (Ellis, 2009, p. 3). Consequently, "[i]mplicit instruction is directed at enabling learners to infer rules without awareness" (Ellis, 2009, p. 16), for example, by providing examples illustrating an underlying rule. As for the development of intercultural competence, textbook units devoted to the acquisition of verbalisable cultural knowledge (for example, encyclopaedic knowledge of the target language country) can be regarded as explicit instruction, while implicit cultural instruction may focus, for instance, on model business letters or useful phrases, which might be treated either as examples of language use or as information about target culture business etiquette. In the former case, the result would be explicit learning of the language, but not necessarily of the culture, though business etiquette would be acquired implicitly at the same time. In the latter case, the learner's cultural awareness, especially "skills of interpreting and relating" and "skills of discovery and interaction" (Byram, 2008, p. 69), would allow the explicit learning of the rules of business writing in the target culture. Therefore, the capacity to use the potential of textbooks in the acquisition of intercultural competence can be assumed to be largely individual and differ from one learner to another.

The Study

The Material under Analysis

The study analyses twenty LSP textbooks in the area of business, which are listed in Table 1 below. They were mostly published by well-known publishing houses specialising in science and the dissemination of knowledge (Oxford University Press, Cambridge University Press, Didier), education (Pearson Education, Ernst Klett Verlag) or in language reference works and language teaching (Langenscheidt, Edinumen, Edelsa, CLE International, etc.). All the publishing houses are given in the references at the end of the article.

Table 1

The Textbooks Analysed Here and the Levels of Proficiency They Are Designed for

No.	Textbook	Level
1.	*Market Leader. Advanced* (2011) by Iwonna Dubicka and Margaret O'Keeffe	C1–C2
2.	*Business Benchmark. Advanced* (2007) by Guy Brook-Hart	C1
3.	*Business Vocabulary in Use. Advanced* (2010) by Bill Mascull	B2–C1
4.	*Business English Handbook* (2007) by Paul Emmerson	B2–C1
5.	*Intelligent Business. Advanced Business English* (2011) by Tonya Trappe and Graham Tullis	C1–C2
6.	*English for Business Studies. A course for Business Studies and Economics Students* (2010) by Ian MacKenzie	B2–C1 (intermediate and advanced)
7.	*Business Result. Advanced* (2009) by Kate Baade, Richard Holloway, Jim Scrivener and Rebecca Turner	C1–C2
8.	*Entscheidungen. Deutsch als Geschäfts- und Verhandlungssprache. Für fortgeschrittene Lerner* (2016) by Anne Buscha, Juliane Matz, Susanne Raven and Szilvia Szita	B2 as a minimum requirement
9.	*Wirtschaftsdeutsch von A–Z. Lehr- und Arbeitsbuch* (1995) by Rosemarie Buhlmann, Anneliese Fearns and Eric Leimbacher	From intermediate to good language competence (Buhlmann et al., 1995, p. 6)
11.	*Das Testbuch Wirtschaftsdeutsch. Deutsch als Fremdsprache in der Wirtschaft* (2013) by Margarete Riegler-Poyet, Bernard Straub and Paul Thiele	B1–C2
12.	*Wirtschaftskommunikation Deutsch* (2017) by Volker Eismann	B2–C1
13.	*Affaires.com* (2012) by Jean-Luc Penfornis	B2–C1
10.	*Blickpunkt Wirtschaft. Niemiecki w ekonomii i biznesie* (2012) by Stanisław Bęza	Not indicated, but destined for higher education (Bęza, 2012, p. 9), so the level can be assumed to be upper-intermediate or advanced.
14.	*Communication progressive du français des affaires* (2018) by Jean-Luc Penfornis	A2–B1
15.	*Vocabulaire progressif du français des affaires* (2013) by Jean-Luc Penfornis	B1
16.	*Édito Pro* (2020) by Alexandre Holle, Amandine Diogo, Manon Grimaud, Bertrand Lauret and Meryl Maussire	B1

No.	Textbook	Level
17.	*Temas de Empresa. Manual para la preparación del Español de los Negocios de la Cámara de Comercio de Madrid* (2005) by María José Pareja	B1/B2/C1 (B1 as a minimum)
18.	*Entorno empresarial. Nivel B2* (2014) by Marisa de Prada, Montserrat Bovet and Pilar Marcé	B2
19.	*Cultura y negocios* (2010) by Ángel Felices, Emilio Iriarte, Emilia Núñez and María Ángeles Calderón	B2–C1
20.	*Español para el comercio mundial del siglo XXI* (2015) by Ángel Felices Lago, Cecila I. Ruiz López and Ana María Corral Hernández	B2–C1

They are designed for different proficiency levels, though most of them are addressed at upper-intermediate and advanced learners, who already possess sufficient competence in grammar, vocabulary, speaking, writing, etc. to focus on developing skills specifically related to business communication or terminology. The only exceptions are the French language textbooks *Communication progressive du français des affaires*, *Vocabulaire progressif du français des affaires*, and *Édito Pro. Français professionnel B1*, which are addressed at lower-intermediate and intermediate learners. Contrary to their names, *Communication progressive du français des affaires* and *Vocabulaire progressif du français des affaires* are not part of a series but single course books, with answer keys sold separately, and no higher-level books of those titles have been published so far. In fact, there is currently no C2-level Business French textbook available. Even though there also exists a series of Business French textbooks not analysed in this study, *Quartier d'affaires* (Collection Pro, https://www.cle-international.com/collection/collection-pro/), its levels reach only from A1 to B1. This confirms Stegu's (2017, p. 369) observation that learners often treat other business languages as additional and set their learning goals in relation to their levels of proficiency in Business English. Except for *Das Testbuch Wirtschaftsdeutsch*, none of the German, French and Spanish books reaches the C2 level.

The textbooks were selected on the basis of their content, their usefulness as LSP textbooks, as revealed by the survey on teachers' opinions on business language teaching materials (Włosowicz, in preparation), and their availability. However, usefulness and availability can be assumed to be related: textbooks regarded as useful by teachers and learners are in demand and are often reprinted to meet the demand. As the study is exploratory in nature, it was decided to analyse a variety of textbooks, ranging from general business language textbooks (e.g., *Market Leader. Advanced*, *Intelligent Business. Affaires.com*, *Entorno empresarial*, etc.) to ones focusing on business vocabulary (*Business Vocabulary in Use. Advanced*, *Vocabulaire progressif du français des affaires*),

business communication, spoken and written (*Wirtschaftskommunikation Deutsch*, *Communication progressive du français des affaires*) and culture (*Cultura y negocios*). They are all relatively recent, as they were published between 2005 and 2020, with the exception of *Wirtschaftsdeutsch von A–Z. Lehr- und Arbeitsbuch*, published in 1995. As the latter presents business vocabulary in the context of texts about Germany and its economy, accompanied by related exercises, it was decided to include it in the analysis. The only reservation concerns prices given in German marks, not euros, but, this is also cultural (more precisely, historical) information which would simply need to be explained to the learners if a teacher used this textbook as supplementary material. Indeed, as will be shown below, the importance of intercultural competence (Buhlmann, Fearns, & Leimbacher, 1995, pp. 66–67) and the impact of sociocultural factors on business negotiations (Buhlmann et al., 1995, p. 86) are emphasised.

Last but not least, as regards the authors, most of them have experience in teaching, often in different countries, teacher training and the preparation of teaching materials. For example, Bill Mascull has taught English in Sweden and France and has developed an interest in the relationship between Business English teaching materials and classroom interaction (https://www.cambridge.org/us/cambridgeenglish/authors/bill-mascull). Similarly, Tonya Trappe has taught English at various French universities and given workshops in such countries as Ireland, Russia, Estonia and Croatia. In addition to English, she also studied economics (https://www.utbildningsstaden.se/sv/tonya-trappe.html), which provided her with background knowledge for writing Business English textbooks. Experienced Business English teachers with over 20 years' experience are also Iwonna Dubicka and Margaret O'Keeffe, based in Barcelona (Dubicka & O'Keeffe, 2011, p. 4). Little information is available about Jean-Luc Penfornis, but he appears to be a prolific textbook author in Business French and related areas, such as French for tourism and the hospitality industry. Professor Volker Eismann (2017, p. 2) used to work at the ESCP Business School (École Supérieure de Commerce de Paris) and at the Paris Chamber of Commerce and Industry. In the case of collective works, such as *Édito Pro*, the collaborators' skills are largely complementary: Alexandre Holle is vice-director for Business French at the Paris Île de France Chamber of Commerce and Industry, in charge of innovation and development; he has experience, among others, in market analysis, needs analysis, teacher training, teaching professional French, etc. (https://www.linkedin.com/in/alexandre-holle-4641b263/?originalSubdomain=fr), Amandine Diogo is the supervisor of courses and exams of the French Institute of Barcelona, at the Ministry of Europe and Foreign Affairs; earlier, she was responsible for teaching Business French at the Paris Île de France Chamber of Commerce and Industry (https://www.linkedin.com/in/amandine-diogo-6308a9111/details/experience/); Meryl Maussire is the coop-

eration attaché for French at the French Institute in Stockholm (https://www.linkedin.com/in/meryl-maussire-13911985/details/experience/), Bertrand Lauret is the author of textbooks focusing on teaching French pronunciation (https://liseo.france-education-international.fr/index.php?lvl=author_see&id=20609), while Manon Grimaud specialises in teaching French to international students and employees, as well as in the creation of teaching materials, including course books, quizzes, exercises, etc. (https://www.linkedin.com/in/manon-grimaud-1a1867121/?originalSubdomain=fr). It can thus be concluded that the authors have the necessary knowledge, skills and experience for the creation of LSP textbooks in the area of business.

Research Questions and Method

The study aims to answer the following research questions: First, what intercultural skills are the textbooks meant to develop? Do they focus on encyclopaedic knowledge, practical skills (e.g., how to write business correspondence in a given culture, how to conduct business negotiations, how to make presentations, etc.), or on cultural awareness, including the ability to reflect on the target culture and relate it to the native one? Second, in what ways are the cultural elements presented? In particular, are they presented explicitly, by pointing out to learners the similarities and differences between their native culture and the foreign one, or implicitly, for example, as reflected in business correspondence as a set of genres?

The method adopted here is an analysis and a comparison of the selected textbooks, taking into consideration what cultural elements they contain, how they are presented and what tasks are used to practise them. The analysis is qualitative: rather than comparing the numbers of particular types of elements in all these textbooks, it focuses on identifying those elements which could possibly serve to develop intercultural competence. In fact, the focus here is on the textbooks' potential for developing intercultural competence, which does not necessarily mean that this potential will actually be exploited. Some of the cultural elements might be deliberately left out by the teacher or the learner, while focusing on other aspects of the course, for example, business terminology. Arguably, even if the course does not focus on the cultural aspects of business communication, some cultural elements cannot be left out completely, though, as they constitute an inherent part of business correspondence or oral communication—for example, business negotiations—in the target language. Moreover, studies investigating the contents of textbooks are often qualitative and this methodology is followed here too. For example, Piwowarczyk (2016) analysed the cultural elements of six A1–A2 level textbooks, such as the national flag, famous people, national dishes, etc., noting their presence or absence by a plus

or minus sign respectively. Counting such varied and scattered elements would not indeed be viable.

In fact, for the present study, a qualitative approach has a number of advantages. First of all, as observed by Dörnyei (2007, p. 39), "[q]ualitative methods are useful for making sense of highly complex situations" and, given the variety of information and activities given in business language textbooks, such textbooks can be treated as highly complex and a quantitative approach might be too reductionist. Indeed, when quantitative studies produce surprising or contradictory results, they provide no information about the causes, whereas "the flexible, emergent nature of a qualitative study" can contribute to their understanding (Dörnyei, 2007, p. 40). Secondly, while the results of a quantitative study can often be summarised in one or two tables of, for example, correlations, qualitative studies can more easily "produce a convincing and vivid case for a wide range of audiences" (Dörnyei, 2007, p. 41). Should a teacher look for a business language textbook covering different aspects of the target language culture, it can be assumed that they would look at concrete examples rather than the sheer numbers of cultural elements in textbooks.

The criteria for analysis adopted here are the following: the encyclopaedic knowledge criterion, which refers to the presence of information about the target language culture in the textbook in any form (sections devoted to the culture in the units, authentic press articles, etc.); the oral communication skills criterion, or the presence and types of activities focusing on oral communication (telephoning, small talk, etc.); the text processing and production criterion, including the reading and analysis of model business emails, letters, reports, etc. as well as producing one's own, and correcting errors or finding particular structures (e.g., ellipsis) in business letters; the specific oral skills criterion (the presence and types of tasks related to making presentations, debating, negotiating, etc.) and, finally, the explicit focus on developing intercultural awareness criterion, which covers tasks that draw the learners' attention to similarities and differences between their native cultures and the target language culture.

As regards business vocabulary, phrases useful in business communication are included in the analysis, however, a detailed analysis of the vocabulary is beyond the scope of the article. While it can be assumed that ready-made phrases used in specific communicative situations (e.g., expressing one's opinion, negotiating, reaching agreement, etc.) constitute a reflection of the culture, business vocabulary is more connected with subject-matter knowledge, such as economic terminology, and is not necessarily relevant to the present study. Indeed, even in the case of textbooks explicitly designed to focus on vocabulary (e.g., *Business Vocabulary in Use*), only those texts, example dialogues and activities which highlight some cultural elements are included in the analysis.

One might argue that, given the time span in which the textbooks were published, ranging from 1995 to 2020, the criteria of their evaluation might

be different. However, first, the importance of developing cultural competence in foreign language learning is not a matter of the last few years, but it has been recognised for decades. In his presentation of the goals and contents of the cultural syllabus, Stern (1992) quotes a number of earlier publications, such as Hammerly (1982), Seelye (1984) and Valette (1977), who paid attention to the knowledge of the target language country, conventional behaviour and the underlying attitudes and values (Stern, 1992, pp. 212–213). A comprehensive work on the role of culture in foreign language teaching, including social interaction contexts, teaching the spoken language as well as using authentic and literary texts, was published by Kramsch (1993). Since the 1995 textbook was published in Germany and concerns Business German, it is possible that the authors had come across some German publications on the teaching of intercultural competence. Indeed, German researchers had also already been investigating intercultural communication and the necessary skills, for example, Melde (1987) and the volumes edited by Knapp, Enninger and Knapp-Potthoff (1987) and Spillner (1990). Secondly, applying different criteria to different course books would distort the results and diminish the validity of the study. By contrast, applying the same criteria to all the books under analysis can show which aspects of intercultural competence are represented in them, which ones are underrepresented and, possibly, which ones are absent. Consequently, it might be assumed that, if a textbook does not contain texts or activities developing intercultural competence, the reason for this could be analysed and attributed, for example, to the type of textbook (e.g., one focusing on vocabulary and terminology), its purpose (e.g., preparing students for an exam which does not involve testing intercultural competence), or, possibly to the time of its publication and the teaching methodology that was dominant then.

The Analysis

Following Rathmayr (2017), in international business one undoubtedly needs encyclopaedic knowledge of the country one does business with. However, all four languages represented by the textbooks analysed here are used in a number of countries. For example, not only is English an international language, used in different contexts all over the world, but it is also the dominant and/or native language in Great Britain, the United States, Ireland, etc., which begs the question of which countries should be presented in the textbook. Table 2 below shows the encyclopaedic knowledge component of the textbooks under analysis. (The titles of the textbooks have been shortened.)

Table 2

The Encyclopaedic Knowledge Criterion

No.	Textbook	Elements of Encyclopaedic Knowledge
1.	*Market Leader*	Hardly any encyclopaedic information on the English-speaking countries; rather, scattered information about companies, economic phenomena, etc. can be found in articles from *The Financial Times*, *The Guardian*, *The Daily Telegraph*, etc. Some information about the economic systems of the English-speaking countries is included in the case studies, but the companies presented there are fictional (e.g., Heitinga T-Com, Logistaid). In nine of the twelve units, there are quotations from famous people (the other three quotations are anonymous) from the English-speaking countries, e.g., Winston Churchill, British Prime Minister, Peter F. Drucker, US management consultant and author, John Sculley, US businessman, etc.
2.	*Business Benchmark*	Scattered encyclopaedic information on the English-speaking countries: small pieces of information appear in other contexts, e.g., the Tate Modern gallery is mentioned in the context of sponsoring art exhibitions, the Gateshead Millennium Bridge appears in the context of winning a contract, etc. Other encyclopaedic information in reading comprehension activities concerns Richard Branson, the British plumbing company Wolseley, etc.
3.	*Business Vocabulary in Use*	Scattered encyclopaedic information is included in the texts (e.g., the US as a country with a flexible job market, financial organisations in the UK and the US); apart from the UK and the US, the texts mention free trade blocs, globalisation, the BRIC economies, etc.
4.	*Business English Handbook*	Very little information about the English-speaking countries, apart from differences between the UK and the US financial markets; other financial markets (European, Asian) are also mentioned, as well as international organisations and the BRIC economies.
5.	*Intelligent Business*	Very little information about the English-speaking countries; the texts are mostly about companies, also in an international context (e.g., an article about Japan, about Italy, about governance in Europe, etc.).
6.	*English for Business Studies*	Encyclopaedic information is not extensive, but some information about the UK and the US is indeed provided, for example, there are listening comprehension tasks on hedge funds and structured products in Britain, as well as mortgages in the US. There are also extracts from British newspapers, such as *The Guardian* and *The Independent*, and texts, for example, about economic freedom in the US, the credit crunch, etc.
7.	*Business Result*	Hardly any encyclopaedic information is given, except about some companies with seats in English-speaking countries (e.g., the Mobile Interactive Group in the UK., Southwest Airlines in the US) in the case studies. However, the case studies also mention companies from non-English-speaking countries, such as the Czech Republic, France, China, etc.

No.	Textbook	Elements of Encyclopaedic Knowledge
8.	*Entscheidungen*	Authentic examples from Germany (e.g., a verdict obliging WhatsApp to introduce a German version), the best-known German advertising slogans, the results of studies carried out in Germany, etc.
9.	*Wirtschafts-deutsch von A–Z*	Statistics concerning Germany (e.g., expenditure for environ-mental protection, the biggest companies, the changing con-tribution of the industry to the GDP); a historical overview of employees' participation in the profits, etc. In fact, most of the texts provide authentic information about the German economic system, often presented on the example of both real (e.g., Siemens, Beiersdorf, Biotec) and fictional companies (e.g., the dairy company Xaver Hinterhuber). However, the histories of some non-German companies, such as the British company Sainsbury's, the Swedish IKEA and Johann Conrad Fischer AG in Schaffhausen, Switzerland, are also outlined.
10.	*Blickpunkt Wirtschaft*	A lot of information about Germany and, to a lesser extent, Austria and Switzerland; types of companies, statistics concern-ing Germany, historical information, etc.
11.	*Das Testbuch Wirtschafts-deutsch*	Information about Germany, given both in texts and in graphics (including statistics); texts about other German-speaking coun-tries (e.g., Switzerland) are much less numerous.
12.	*Wirtschafts-kommunikation Deutsch*	A considerable amount of information about Germany: some more or less well-known German companies (Thyssen, 3M, Henkel, etc.); maps of Germany to show the cities which organ-ise trade fairs, or the area served by a delivery company; some statistics (e.g., the services of commercial representatives in Germany, percentages of top managers visiting trade fairs, etc.); the presentation of a company, as exemplified by the adminis-tration of the health resort Bad Krozingen.
13.	*Affaires.com*	Encyclopaedic information is only given in texts presenting, for example, types of companies in France, types of employment, the process of creating a company in France, etc. It thus re-gards the French economic system and business culture rather than France as a country and its culture.
14.	*Communication progressive du français des af-faires*	No encyclopaedic information about France or the French-speaking countries, except some names of French, Belgian, Swiss and Canadian cities and the company Azur Telecom (other companies are fictional) in the context of the texts.
15.	*Vocabulaire pro-gressif du français des affaires*	Information about France, its economic system, types of com-panies, the number of working hours, etc. is given in the texts which also present thematic vocabulary.
16.	*Édito Pro*	Very little encyclopaedic information about France or the French-speaking countries as such, but cultural information is provided instead, on the consequences of saying 'yes' in France and accepting an obligation, information about the functioning of French companies, etc.

No.	Textbook	Elements of Encyclopaedic Knowledge
17.	*Temas de empresa*	Quite a lot of encyclopaedic information about Spain is given in the texts used in reading comprehension tasks (Spanish companies, well-known entrepreneurs, the stock exchange, etc.; also information given in the form of graphs); there is also some information about Latin America and the Mercosur trading bloc.
18.	*Entorno empresarial. Nivel B2*	Limited encyclopaedic information. Some information about the Spanish market, establishing a company in Spain (conveyed in a dialogue), or about selected companies, e.g. Zara and the Paradores group. Yet, there is an article about Latin America in the appendix on cultural differences.
19.	*Cultura y negocios*	Each of the 10 units covers a certain aspect of the Spanish economy (e.g., the Spanish population, infrastructure, types of companies, etc.), as well as one Latin American country (Argentina, Uruguay, Chile, Peru, Colombia, Venezuela, Panama, Mexico and Cuba; even Brazil is presented, although it is a Portuguese-speaking country). There are also 4 appendices about economic integration in Latin America, the economic role of Spanish speakers in the US, the status of Puerto Rico and the Hispanic population in Miami.
20.	*Español para el comercio mundial del siglo XXI*	Encyclopaedic information is only given in texts about business and economics; one can learn, for example, about the types of companies that exist in Spain, chambers of commerce, etc.

It can thus be seen that encyclopaedic information about the target language countries is considerably limited. Apparently, the textbooks focus on business and skills directly connected with it (as will be shown below, some of them offer advice on specific career skills, such as making presentations), while the learners are supposed to acquire encyclopaedic information elsewhere. This confirms Pulverness's (2003) statement cited in Section The Role of Culture in Foreign Language Learning and in Business Communication above that textbooks tend to focus on the use of English in international contexts rather than on the cultures of the English-speaking countries. However, this applies to most of the other textbooks as well. Exceptions are the German textbooks, which provide information about the German economy, trade fairs, etc., and *Cultura y negocios*, which explicitly focuses on intercultural business communication and which, consequently, presents the cultural contexts of the Spanish-speaking countries, as well as Brazil, which, although a Portuguese-speaking country, is an important economy on the South American market. Some information, however, is presented in the form of business-related statistics, especially in the German textbooks.

Another significant component of every business language course is undoubtedly communication. While communication can be both oral and written, written communication will be analysed separately, taking into consideration the presentation of business letters as examples of the genre. Therefore, at

this point, the analysis will focus on oral communication, especially on useful expressions that can facilitate it. Certainly, many such expressions can be used in written communication too, and, moreover, the boundary between oral and written language has to some extent been blurred, as, for example, short messages on Skype, Messenger, etc. resemble oral utterances. Yet, while the analysis of model business letters will focus on the structure, content, layout, etc. of such letters, Table 3 presents activities focusing on expressions which serve a variety of communicative purposes, such as apologising, summarising, asking for a clarification, etc.

Table 3

The Oral Communication Skills Criterion

No.	Textbook	Activities Developing Oral Communication Skills
1.	*Market Leader*	In every unit, there is a *Useful Language* section containing prefabricated phrases and sentences related to the topic (e.g., socialising, putting forward proposals, disagreeing indirectly, building rapport with the audience, etc.). The *Business Skills* sections in the units provide advice, for example, on resolving conflicts, coping with questions, etc.
2.	*Business Benchmark*	Questions for discussion in small groups, accompanied by "useful language," or boxes with prefabricated phrases related to the topic (e.g., giving strong or direct opinions, dealing with cold-callers, speaking to reluctant prospects, expressing causes and results, etc.).
3.	*Business Vocabulary in Use*	As the book focuses on vocabulary, speaking activities are limited. Sentences which might be used, for example, at a meeting, appear in some of the texts and exercises. At the end of each unit there is an *Over to you* task, where the learners are expected to answer some questions. However, the questions are quite general and not related to communication in any specific culture, for example, the students are supposed to think of their organisation or one they would like to work for and its fiercest competitors.
4.	*Business English Handbook*	Some useful phrases for communicating in English are included in the unit on social English and cultural awareness, e.g., introductions, thanking, preparing to go, reacting to good and bad news, etc. The unit on style and politeness also touches upon politeness in speech.
5.	*Intelligent Business*	Each unit includes a section entitled *Career skills*, whose relation to communication is more or less obvious. While pitching (in the sense of proposing a business idea) or presenting arguments involve speaking and useful phrases and/or guidelines for speaking are provided in the textbook, such skills as resistance to change or making ethical decisions are psychological or moral rather than linguistic, but they are also to some extent cultural, as they are based on some norms and expectations.
6.	*English for Business Studies*	Speaking tasks are indeed included, but without useful phrases in English. Instead, some possible arguments or elements to take into consideration are provided.

No.	Textbook	Activities Developing Oral Communication Skills
7.	*Business Result*	Every unit includes a box with key expressions (prefabricated phrases) and a section entitled *Practically speaking*, which provides information (recorded conversations), followed by speaking tasks such as responding to feedback, using vague language, showing understanding, etc. There is also a list of useful phrases in an appendix.
8.	*Entscheidungen*	Small talk; group work (creating an advertising strategy); talking about the advantages and disadvantages of something, etc. Useful phrases and expressions are provided.
9.	*Wirtschaftsdeutsch von A–Z*	Speaking practice: commenting on the stories and statistics, answering comprehension questions, pair work and sharing the results with the whole group.
10.	*Blickpunkt Wirtschaft*	Speaking practice is mostly limited to text-based exercises (e.g., comprehension questions, comments on the texts); commenting on graphics and statistics. The tasks focus on practising business terminology rather than oral business communication. Exceptions involve e.g., simulating a telephone conversation about what a German manager should expect in Poland in order to avoid cultural misunderstandings.
11.	*Das Testbuch Wirtschaftsdeutsch*	No speaking practice, only vocabulary (terminology), grammar, completing business letters, reading comprehension and listening comprehension.
12.	*Wirtschaftskommunikation Deutsch*	Speaking tasks with useful expressions and phrases to help learners sound more natural and native-like in German. Small talk. Role-play, e.g., a customer explains an enquiry and the seller finds the delivery date quite problematic.
13.	*Affaires.com*	Role-play with role cards for each student, for example, a dialogue between a CEO and a financial analyst, between a solicitor and their client, etc. In addition, some expressions useful for telephoning are given in an appendix.
14.	*Communication progressive du français des affaires*	Practically all the texts and tasks are devoted to the development of foreign learners' communication skills in French. Useful phrases and expressions are provided in each of the 74 units.
15.	*Vocabulaire progressif du français des affaires*	Useful phrases and expressions, both formal and informal, are included in various units. There are, for example, four units on telephoning in French (basic information, getting in touch, dealing with complications and making an appointment) to give the learners an idea of what a model conversation might look like, what expressions should be used, etc.
16.	*Édito Pro*	A lot of useful phrases (e.g., how to give suggestions, to refuse politely, apologise, etc.). Advice on other aspects of communication, such as addressing someone informally at work.
17.	*Temas de empresa*	No small talk or similar basic communication, given the purpose of the course (an examination for a certificate). However, there are oral activities in every unit, including giving one's own opinion. No useful phrases are given, but it can be assumed that the utterances have to be linguistically and culturally appropriate.

No.	Textbook	Activities Developing Oral Communication Skills
18.	*Entorno empresarial. Nivel B2*	Useful expressions are provided, also, for example, for expressing certainty, doubt, disagreement, or establishing rapport with the interlocutor, etc.
19.	*Cultura y negocios*	Most of the speaking activities are reading comprehension tasks. Useful phrases are not presented, except for some dialogues, which also reflect ways of communicating, for example, a Spanish negotiator's style.
20.	*Español para el comercio mundial del siglo XXI*	Very limited. Oral activities include answering comprehension questions, explaining business terms, creating a dialogue (a telephone conversation) and a discussion in pairs.

As Table 3 shows, textbook authors realise that certain expressions make one sound natural in the target language, that is why they often provide lists of useful expressions and prefabricated phrases. Arguably, given the specificity of business communication, using the right expressions may be even more important for a foreigner to sound professional than is the case in everyday communication. The lack of speaking activities in *Das Testbuch Wirtschaftsdeutsch* and their limited number in *Temas de empresa* and *Business Vocabulary in Use* are most probably due to the requirements of the exams the former two books prepare students for and to the vocabulary-focused character of the latter. However, the limited number of speaking tasks in *Español para el comercio mundial del siglo XXI* seems quite surprising, as a textbook supposed to prepare students for communication in international trade might actually be expected to contain numerous speaking activities, including business negotiations, product presentations, etc. However, this is explained by the subtitle *Términos y expresiones esenciales en el mundo de los negocios*: like *Business Vocabulary in Use*, this is a textbook which focuses mainly on terminology and useful business expressions rather than on developing communication skills. At the same time, as specific expressions are also polite, for example, because they are less direct, learning them is part of intercultural competence. Selected examples of phrases useful in oral business communication are given in Table 4. Because of space limits, only some of the textbooks have been chosen as sources of examples.

Table 4

Selected Examples of Phrases Useful in Oral Communication

No.	Textbook	Examples of Phrases	Comments
1.	*Market Leader*	Let me see if/make sure I understood you correctly. (p. 18) Could you explain/clarify what you mean by/when you said...? (p. 18) I'm afraid I don't have that information at hand, but... (p. 101)	The phrases constitute examples of politeness in English: hedging ('let me see', 'I'm afraid') sounds more polite than a direct statement, e.g., 'I don't know.'
2.	*Business Result*	I still have serious reservations. (p. 33) We should at least consider it... (p. 49) It must be two years or more since we last met? (p. 134)	The first two sentences are used during meetings: the first one expresses polite disagreement and the second evaluates an idea. The third one serves to establish rapport.
3.	*Business English Handbook*	I'm not sure I agree with that. I've got mixed feelings about that. (p. 69) Just bear with me for a moment. (p. 73)	The first two sentences express polite disagreement, whereas the third one is used while attempting to solve a problem.
4.	*Entscheidungen*	Ich halte es für wahrscheinlich, dass... (p. 57) Ich bin nicht (davon) überzeugt, dass… (p. 57) Ich möchte noch einmal darauf hinweisen, dass/wie wichtig… (p. 69)	The first two phrases express the speaker's opinion on probability and conviction or doubt respectively; the third one is a reference to an earlier point.
5.	*Wirtschaftskommunikation Deutsch*	Ich habe nicht genau verstanden: …? (p. 46) Es hat sich als schwierig erwiesen,... Leider war es nicht möglich,.../konnte ich bisher noch nicht. (p. 57)	The first sentence is a request for an explanation; the other two serve to apologise for a problem or a delay.
6.	*Affaires.com*	Mme Leroy: C'est noté, monsieur Corbeau, je vous appellerai dans la semaine. M. Corbeau: C'est très aimable à vous. Mme Leroy: À votre disposition. (p. 25)	The ending of a polite conversation. Mr Corbeau is looking for an office to rent; Mrs Leroy represents the estate agency.
7.	*Édito Pro*	Pouvez-vous me confirmer que toutes les informations sont correctes ? (p. 131) Si j'ai bien compris, vous êtes un couple avec deux enfants. (p. 131) Pour vous satisfaire au mieux, j'ai besoin d'en savoir plus. (p. 132)	The sentences are used in communication with customers in order to complete and confirm the information received and to reassure the customer.
8.	*Cultura y negocios*	Banquero: ¡Buenos días! ¿En qué le puedo servir ? Cliente : Quisiera abrir una cuenta corriente. ¿Me podría informar de los tipos que hay ? (p. 121)	The beginning of a dialogue between a bank clerk and a customer who wants to open a current account.

As the examples show, the textbooks provide different phrases which facilitate communication in the target languages. On the one hand, they reflect the rules of politeness in a given culture, so that learners know how to serve a customer, thank someone or disagree politely. On the other hand, conscious reflection on them might improve one's intercultural competence, as such phrases can be assumed to express underlying cultural values, such as willingness to help or indirect rather than direct disagreement.

Moreover, given that business correspondence includes several specific genres (emails, reports, memos, etc.), its conventions may differ from one culture to another, that is why business writing competence has an intercultural component. Letters also reflect the rules of business etiquette in a given culture. According to Evans (2013, p. 291), teaching the language of business should involve "processing and producing interdependent text types." Table 5 presents activities related to the production of different texts, including advice on writing them, formal and informal registers, error correction, etc.

Table 5

The Text Processing and Production Criterion

No.	Textbook	Activities Focusing on Text Processing and Production
1.	*Market Leader*	The textbook includes 9 examples of emails and activities related to email writing (correcting errors, finding ellipsis in an email, etc.), 21 tasks involving writing an email for a specific purpose, e.g., an investment proposal, writing a mission statement on the basis of a model mission statement, writing a formal letter, a report, a press release, etc., or rewriting an email, for example, to make it sound polite, 2 examples business reports and 2 reports to write, as well as a writing file at the end with models of different business texts (an email, a business report, action minutes, etc.)
2.	*Business Benchmark*	Examples of different types of written messages: 3 memos, 3 emails, 2 letters, a note and a notice; pair work drawing the learners' attention to the style (formal vs. informal), the use of bullet points, etc. One report contains errors that need correcting. Other activities involve: writing or replying to a memo (4 tasks), 5 proposals, writing 4 letters and correcting errors in one, as well as writing 5 emails and 7 reports.
3.	*Business Vocabulary in Use*	Four units are devoted to business writing, including CVs, job enquiries, replying to an email, making a presentation and linking ideas. Some text processing is also included, for example, writing a CV on the basis of a loose self-presentation (1 task).
4.	*Business English Handbook*	Units on developing an argument, linking words, writing paragraphs and writing a CV. 7 examples of emails are provided, one model CV, one balance sheet and one profit and loss account. The learner is expected to write two emails, put one email in order and fill in the gaps in another, and write a CV. In fact, writing a CV is combined with a job interview, so the information in the written text is also processed in oral communication.

No.	Textbook	Activities Focusing on Text Processing and Production
5.	*Intelligent Business*	The rules of business writing, including layout and useful phrases, as well as examples (2 sample emails, a sample memo, a sample report, a press release, one example of minutes, a CV, a cover letter and a letter of confirmation), are presented in a separate booklet entitled *Style guide*, attached at the end of the book. Writing tasks include 2 emails, 2 formal letters, 3 memos, 3 press releases, 2 reports, an article, a comment and an essay.
6.	*English for Business Studies*	A sample CV and a covering letter are provided, as well as extracts from 6 different application letters and 3 CVs for the learner to evaluate. Cultural differences between British, American and Asian CVs are listed. There are writing tasks in all the units, including 5 emails, 6 reports, a memo, minutes, a press release, 8 summaries and 2 short texts. However, model texts are not provided.
7.	*Business Result*	6 emails are included, but they are not necessarily the basis of writing tasks, but they can be, for example, reading comprehension tasks or the basis of a discussion. Writing tasks involve, for instance, taking notes for later speaking activities. Text processing tasks also include completing an email with some phrases or choosing the right word (4 emails) and grammatical error correction (1). The textbook generally focuses on oral rather than written communication.
8.	*Entscheidungen*	Politeness in writing: greetings and honorifics; netiquette; writing emails on particular topics (e.g., accepting or refusing an invitation, explaining that a deadline is impossible to meet); writing a brochure; replying to an email, etc. One model email, one job offer and one job contract are provided; the learners are supposed to write 11 emails, 2 letters, 2 reports, 4 texts/essays, 3 comments, one summary and one job offer.
9.	*Wirtschafts-deutsch von A–Z*	No practice of business correspondence; a job offer as a model document; writing tasks involve, e.g., taking notes before speaking in front of the group.
10.	*Blickpunkt Wirtschaft*	5 examples of business letters are provided (booking a room, booking a stand at a trade fair, an enquiry and making staff redundant) and learners are expected to write similar letters (booking a stand at a fair and later cancelling the reservation, making an employee redundant, etc.).
11.	*Das Testbuch Wirtschafts-deutsch.*	9 examples of business letters and 9 examples of advertisements are provided, but the learners are not expected to write letters of their own, only to fill in the gaps in the letters with the right terms and expressions. One business report is used in a reading comprehension task.
12.	*Wirtschafts-kommunikation Deutsch*	A variety of model documents: 2 emails, 19 letters, including faxes, enquiries and offers, a job offer, a contract, a report, minutes, etc. and lists of phrases useful in written communication. Written tasks such as writing an offer, an enquiry, or letters in different styles (a neutral and polite letter and a customer-oriented one): 11 tasks involve writing letters and one—unscrambling a letter; one task involves writing a report, one—minutes, and one—a case study. There is also a list of useful phrases in the appendix.

No.	Textbook	Activities Focusing on Text Processing and Production
13.	*Affaires.com*	Different model emails, memos, letters and other documents (e.g. a fire report) are provided, either complete (24 emails or letters, one job offer) or incomplete (to be put in order, corrected or completed: 16 emails or letters). Learners are also expected to write similar messages and letters (20 emails or letters, 3 forum messages, 2 articles, 2 minutes, 1 report, 1 summary). A whole unit is devoted to professional correspondence. In addition, expressions useful for business correspondence are listed in an appendix.
14.	*Communication progressive du français des affaires*	62 model emails, including a complaint, correspondence with customers, etc., 2 CVs, 3 business letters, 6 memos, 2 meeting reports, and even an accident report are provided. Learners are also supposed to reply to 25 emails, unscramble 4 emails, fill in gaps in 4 emails and correct the errors in one, write a CV, an application letter, a complaint, a memo, etc.
15.	*Vocabulaire progressif du français des affaires*	A model business letter, 2 emails, an invoice and a balance sheet are presented, with some background information on writing such correspondence in French. However, the learners only have to write 2 letters on their own, and in the others they have to find errors, complete sentences, put the email in order, etc.
16.	*Édito Pro*	31 model emails are included, as well as a model CV (and 2 others in the model test in the appendix), and additional information is given, for example, on how to write a CV in France. Writing activities include writing or replying to emails, replying to a job offer (writing an application letter), dealing with complaints, etc. (32 tasks), writing a CV (3), a report (8), a presentation (3), a post on a forum (5), an action plan (1), etc.
17.	*Temas de empresa*	8 model letters, 3 emails and 4 job offers are included and students are expected to write a reply to them or to write similar letters (8 letters, 3 emails, a CV, a short message to a customer, 2 descriptions, a summary and a dialogue). One letter contains errors to correct.
18.	*Entorno empresarial. Nivel B2*	A model CV and 3 job offers are presented, but the learner is not required to write a CV or an application letter of their own. An example of minutes is given and the learner is supposed to write minutes too. Similarly, the preparation of a proposal, an advertisement, etc. can be done orally or the students can take notes, without writing a coherent text.
19.	*Cultura y negocios*	Writing activities are included, but not necessarily related to business correspondence. Certainly, one task involves writing an email with an apology, one—a request by a ship owner to be received by the Minister of the Environment, and one—a report, but other tasks consist in writing essays. Model letters or reports are not provided.
20.	*Español para el comercio mundial del siglo XXI*	6 examples of international commercial documentation in Spanish (e.g., an invoice, a certificate of origin, a marine insurance certificate) are provided for the learners to become familiar with them, but not as model documents for writing. In fact, this textbook does not focus on business correspondence, but rather on background knowledge and economic terminology.

As certain text types (enquiries, apologies, reports, CVs, letters of application, etc.) are frequent in business correspondence, most of the textbooks analysed here present them too. The only textbook which provides no opportunity for practising business correspondence, only a job offer as a model document, is *Wirtschaftsdeutsch von A–Z*. Above the title the book is described as "communication and specialist vocabulary in the economy" (Buhlmann et al., 1995, cover, the author's translation), so it might be supposed to develop communication skills, also in writing, but this is not the case. It is possible that the authors decided to concentrate on developing oral communication skills, especially discussing business in a group, using the terminology from the lessons.

Arguably, paying attention to the features of each genre in the target language can help learners to develop their target culture writing skills. However, emails appear not only in activities that focus on business correspondence, but also, for example, in case studies, where they give information on the cases, but can serve as potential model emails as well, provided the reader has sufficient intercultural awareness. Some examples of phrases used in business writing and presented in the textbooks are given in Table 6.

Table 6

Examples of Phrases Used in Business Writing

No.	Textbook	Examples of Phrases	Comments
1.	*Market Leader*	I'd be very grateful if you could confirm that these details are all correct. (p. 19) With reference to your letter of 30 April, I would like to thank you for inviting me to speak as a keynote speaker at the Business Solutions conference organised by the Vancouver Business School this November. (p. 142) I am very sorry for any inconvenience caused. (p. 143)	These sentences appear in whole letters included in the textbook. The first one is an email that is part of a writing activity, while the other two are a model formal letter and a model email breaking bad news respectively.
2.	*Business Result*	Please find attached for reference a summary of a report from RM-Circuit, where they initiated the first project of its kind. (p. 28) I've recently handed in my resignation to my outlet manager and I feel that I have to inform you about the issues that led me to do this. (p. 45)	The sentences appear in emails used as sources of information for case studies; they can also be taken to obey the rules of English politeness.

No.	Textbook	Examples of Phrases	Comments
3.	*Business English Handbook*	We regret to inform you that the software pack you require is not in stock (p. 80). We trust that you will understand our position and we regret any inconvenience caused. (p. 83)	The sentences appear in whole emails written in response to complaints and expressing a polite apology.
4.	*Entscheidungen*	Bitte bestätigen Sie Ihre Teilnahme per E-Mail. Im Voraus vielen Dank. Mit freundlichen Grüßen Helga Polger (p. 48)	The closure of an email—an invitation to a training session, asking the participants to confirm their attendance.
5.	*Wirtschafts-kommunikation Deutsch*	Sehr geehrte Frau Vermeer, Bezug nehmend auf unser Gespräch am 7. November in Düsseldorf, möchte ich Ihnen dieses Angebot zukommen lassen. (p. 134)	The beginning of a letter with an offer.
6.	*Affaires.com*	Je vous prie de recevoir, Madame, Monsieur, mes meilleures salutations. (p. 71) Je vous serai reconnaissant(e) de m'accorder un délai... (p. 114) Conformément à notre accord, nous vous livrerons... (p. 114)	The first sentence is the closing of a formal letter and comes from a model letter to an insurance company; the other two are given as useful phrases (a request and a promise) from the phrase bank at the end of the book.
7.	*Édito Pro*	Chère Madame Boisson, Nous vous demandons de bien vouloir accepter toutes nos excuses pour cette réponse tardive. Nous vous confirmons que le colis a été égaré par notre transporteur. (p. 156)	The opening of an email replying to a customer's complaint (a letter of apology).
8.	*Temas de empresa*	Nos agradaría poder ofrecerles nuestros servicios en un futuro muy próximo. Muy atentamente, Alberto del Río Díez (p. 40)	The closure of a business letter.

Moreover, apart from everyday conversation, where such skills as small talk, apologising, etc. are used, oral communication in business can take more specific forms, such as making presentations or negotiating. Certainly, such skills cannot be learnt from textbooks alone because they need to be practised orally and feedback has to be given on different aspects, not only the use of business expressions, but also pronunciation, body language, etc. However, general advice on presenting, negotiating, etc. in a particular culture can be given in textbooks as well and can serve as a basis for oral practice under a teacher's supervision.

Table 7

The Specific Oral Skills Criterion

No.	Textbook	Activities Developing More Specific Oral Skills
1.	*Market Leader*	Making an international presentation (both theoretical advice and a presentation task), making an impact in presentations, negotiating, holding a meeting, brainstorming. There is an activity file at the end of the book with role cards for the students (e.g., an agenda for chairing a meeting).
2.	*Business Benchmark*	Simulations: negotiating a lease, holding a meeting on sponsoring art exhibitions, cold-calling, making a sales pitch, negotiating an agreement between the management and the staff. Chairing meetings and presenting at a meeting.
3.	*Business Vocabulary in Use*	No specific oral skills, such as negotiating, are covered in the textbook. Presentations are mentioned in the context of business writing and some useful phrases are provided.
4.	*Business English Handbook*	The book contains units devoted to making presentations, their structure and key phrases as well as using a lively language and being persuasive; there is also a unit on discussions.
5.	*Intelligent Business*	Some of the *Career skills* sections are devoted to oral skills, such as influencing, negotiating, debating, etc. Written practical advice is followed by exercises (e.g., matching tactics with headings) and speaking tasks accompanied by some scenarios or participant profiles.
6.	*English for Business Studies*	Each unit includes a speaking task, such as a discussion, a debate or a presentation. For presentations, some arguments for learners to use are provided.
7.	*Business Result*	Every unit includes a section on business communication skills, such as negotiating, participating in meetings, making presentations and telephoning. Key expressions for managing the discussion, putting forward ideas, etc. are provided.
8.	*Entscheidungen*	Presenting the results of a study; a for-and-against discussion; making a justified proposal; a discussion of the division of public money, etc.
9.	*Wirtschaftsdeutsch von A–Z*	Group discussions (e.g., one group discusses managers' roles in large companies and the other in small ones); no presentation skills or simulations.
10.	*Blickpunkt Wirtschaft*	Practising discussion: one group presents the advantages of advertising and the other its disadvantages. Advice on making presentations: using time efficiently, keeping eye contact, self-presentation, giving the information and summarising it, etc.; a practical example is provided.
11.	*Das Testbuch Wirtschaftsdeutsch*	As mentioned in Table 3 above, no speaking practice is included.
12.	*Wirtschaftskommunikation Deutsch*	Discussions and negotiations: negotiating an offer, discussing plans, discussing the plan of developing a product, discussing the promotion of a product, etc.

No.	Textbook	Activities Developing More Specific Oral Skills
13.	*Affaires.com*	Apart from speaking tasks in the form of role-play, the textbook does not include business negotiations or public presentations; even the presentation of sales figures is in the form of a dialogue.
14.	*Communication progressive du français des affaires*	Opening and closing a meeting, introducing a speaker, presenting sales figures, etc. Given the learners' limited proficiency level, no serious negotiations are possible yet.
15.	*Vocabulaire progressif du français des affaires*	Participating in a meeting, speaking in public and negotiations. However, given the learners' limited proficiency level, they are not yet expected to participate in such activities. Instead, they have to answer comprehension questions and solve vocabulary exercises.
16.	*Édito Pro*	Making an oral presentation including numerical data; the art of negotiation: presenting arguments in favour of a benefit added to the salary.
17.	*Temas de empresa*	Oral presentations and dialogues, including role-play in which one student tells the other how to behave in the presence of a tyrannical boss.
18.	*Entorno empresarial. Nivel B2*	Three final sections devoted to effective meetings, negotiations and presentations. Advice on successful meetings, negotiations and presentations, followed by tasks in which, for example, students negotiate in groups or make presentations.
19.	*Cultura y negocios*	Such tasks are not numerous, but they include, e.g., discussing the creation of a company: proposing the initial idea, describing the product or service, choosing the company's legal status, etc., and negotiating in pairs to solve two problems, using the win-win negotiating style.
20.	*Español para el comercio mundial del siglo XXI*	No specific oral skills, except a telephone conversation and a discussion on the advantages and disadvantages of importing certain materials. Rather than useful phrases, arguments for and against are provided.

As shown above, the language means for developing specific business skills vary from one textbook to another. The presence or absence of such skills depends, among other things, on the focus of a book: textbooks aiming to prepare learners for real communication at work, such as *Market Leader* or *Intelligent Business*, devote more space to them than those which focus on vocabulary, terminology, etc. Selected examples of phrases used in specific business communication are given in Table 8.

Table 8

Examples of Phrases That Are Part of Specific Business Skills

No.	Textbook	Examples of Phrases	Comments
1.	*Market Leader*	So, we were wondering whether you'd be able to... So, do we agree on € 9 per bottle, then? What if we delivered one week earlier and you gave us...? (p. 79)	Examples of phrases used in negotiations between a supplier and a buyer.
2.	*Business Result*	I'm afraid it is just not possible. We have reached the point where we have no other option than to... That sounds feasible. (p. 89)	Examples of phrases used in negotiating and reaching agreement.
3.	*Business English Handbook*	So, just before I finish, let me summarize the main points again... And now, if you have any questions, I'll be pleased to answer them. As you can see from this next slide... (p. 61)	Examples of phrases useful in making a presentation.
4.	*Entscheidungen*	Meines Erachtens verstößt der Aufdruck der Buchstaben (nicht) gegen das Markengesetz, weil... (p. 61) Ich vertrete (nach wie vor) die Meinung/die Auffassung/die Ansicht, dass... (p. 69)	The phrases are examples of formulating and defending one's opinion in a discussion.
5.	*Wirtschafts-kommunikation Deutsch*	Damit zeigen Sie einen wichtigen Gesichtspunkt auf. Ich darf daran erinnern/noch Folgendes ergänzen: … (p. 184). Ihr Angebot befriedigt uns nicht, insbesondere was… betrifft (p. 113).	The first two sentences are a reply to a presentation, and the third one is used in negotiations.
6.	*Affaires.com*	Fournisseur: Pour votre première commande, je peux vous proposer une réduction de 10%. Cliente: C'est déjà mieux. (p. 74)	An excerpt from a negotiation between a supplier and a customer.
7.	*Édito Pro*	Pour plus de détails/Pour en savoir plus/En cas de question, vous pouvez vous adresser à la comptabilité. (p. 114) Auriez-vous quelques instants à m'accorder pour que je vous présente notre nouvelle collection? (p. 127)	The first sentence serves to inform the receiver on where to obtain more information. The second one is used to invite a customer to see the company's new collection.
8.	*Cultura y negocios*	Sr. González: ¿Qué descuento me haría usted? Me interesaría... Sr. Martínez: Nosotros ofertamos calidad, no cantidad. Nuestros productos son buenísimos y tenemos tantos clientes que a veces no podemos atenderlos a todos. (p. 35)	An excerpt from a negotiation between a customer (Mr González) and a supplier (Mr Martínez).

Finally, activities developing intercultural awareness are those which draw learners' attention to the similarities and differences between their native culture and the foreign one, or, possibly, between various cultures, aiming to teach the learners to observe such similarities and differences themselves and use those observations in real-life interaction. As was mentioned in the Sections Teaching the Language of Business and The Role of Culture in Foreign Language Learning and in Business Communication above, an important role in LSP is played by lifelong learning. Arguably, intercultural awareness allows foreign language users to reflect on new situations and to expand their knowledge and develop their skills. Activities aiming to help learners develop their intercultural awareness are presented in Table 9.

Table 9

The Explicit Focus on Developing Intercultural Awareness Criterion

No.	Textbook	Activities Developing Intercultural Awareness
1.	*Market Leader*	Some questions for discussion are not limited to the English-speaking countries, for example, the students are supposed to answer which tips on networking are desirable in their culture and which are not. However, most pair work is culturally neutral, for example, what kind of project manager the students would like to work with. A listening comprehension task is an interview with an international communications expert about verbal and non-verbal communication; it is general, not culture-specific. Every larger unit contains a *Working across cultures* section: on making international presentations, socialising, ethical international business and managing international teams. The case studies also have an intercultural component, e.g., entering a new market overseas.
2.	*Business Benchmark*	A unit on corporate culture. A unit on an overseas partnership between a Singaporean company and a Polish one. A unit on expanding abroad: mostly from the business point of view, but one question for discussion regards communicating the corporate culture to the foreign subsidiaries.
3.	*Business Vocabulary in Use*	Three units are devoted to intercultural communication: *Intercultural teams*, *Intercultural meetings* and *Intercultural networking*. Even though they focus on terminology, they also contain some general practical advice (e.g., on eye contact, topics to avoid, etc.).
4.	*Business English Handbook*	A unit on social English and cultural awareness: it makes learners careful about stereotypes and draws their attention to cultural differences (e.g., expressive or restrained body language, loose time vs. strict time, etc) and, finally, asks them to discuss how these aspects are represented in their native culture.

No.	Textbook	Activities Developing Intercultural Awareness
5.	*Intelligent Business*	Activities devoted to raising intercultural awareness are very general: the *Culture at work* section in every unit only mentions the fact that debating styles or hierarchical relations at work vary from one country to another, but no specific examples are provided. Instead, the learners are supposed to reflect on the similarities and differences between their native culture and those of the English-speaking countries. There is advice on how to debate, negotiate, etc. in English, which might implicitly teach the skills of debating, negotiating, etc. in the English-speaking countries, though much of it seems universal and connected with English as a global language rather than a specific country.
6.	*English for Business Studies*	A unit devoted to managing across cultures and cultural diversity. There is also a unit on international trade, but it is more economic than cultural. In other units, some questions for discussion concern the learners' country, so that they can compare their country with the UK or the US.
7.	*Business Result*	A whole unit devoted to working across cultures and cross-cultural experiences. In each unit, there are also questions concerning the learners' native culture (for example, how important body language and gestures are in their culture).
8.	*Entscheidungen*	A unit on international cooperation and intercultural matters: examples of intercultural misunderstandings; questions for the learners whether they have any international work experience, what differences they would expect if they were to work with Germans in a team; arguments for and against working abroad; a section on small talk. Questions about the learner's native country, e.g., regarding employment.
9.	*Wirtschaftsdeutsch von A–Z*	Focus on Germany and to some extent on the German-speaking countries (e.g., Switzerland); focus on business and economics, not on culture. Only one lesson is devoted to the intercultural competences of managers. However, the role of sociocultural factors in business negotiations is discussed later on, where differences between German and American business people on the one hand and their Spanish or South American and Chinese or Japanese business partners on the other are discussed. Some questions about the learners' native country (e.g., the role of corporate culture there, entrepreneurs' visions, etc.).
10.	*Blickpunkt Wirtschaft*	Germany is compared with other countries (including statistics); there are some comparisons between Germany and Poland as well as questions for the learners to discuss.
11.	*Das Testbuch Wirtschaftsdeutsch*	The focus is mostly on Germany, but other countries are also mentioned in some of the texts (e.g., Denmark or the US); the tasks involve comprehension questions, so the learners are not expected to express their own reflections.
12.	*Wirtschaftskommunikation Deutsch*	Contrastively presented rules of communication, e.g., differences between discourse in German and French; a comparison of German and foreign job titles (e.g., Leiter der Verkaufsabteilung—Sales Manager, Vorstandsvorsitzende—Chairman); a question about the importance of German for the course participants, etc.

No.	Textbook	Activities Developing Intercultural Awareness
13.	*Affaires.com*	Focus on French culture; foreign trade is only presented in terms of background economic knowledge and terminology, not intercultural communication. Other countries also appear in a unit on national statistics (population, GDP, etc.).
14.	*Communication progressive du français des affaires*	Focus on communication in French; even more personal activities, such as writing a short biographical note, must be done in French, in accordance with the French cultural rules.
15.	*Vocabulaire progressif du français des affaires*	A unit on intercultural negotiations and two units on corporate culture, to make the learners aware of different levels of culture, also within the company. Comparisons with the native country are rare, but one task involves writing an essay on one or several companies from the native country.
16.	*Édito Pro*	Questions about the learner's native country are rare (for example, whether sandwich courses exist there too), but some of the information about French culture seems to function contrastively, even though such contrasts are implicit (for example, stressing the fact that French CVs are short might be relevant to someone in whose country longer CVs are the norm).
17.	*Temas de empresa*	Questions about the learner's native country, for example, what kinds of public and family companies there are, what are the characteristics of executives there, or what are the differences between job contracts in the learner's country and Spain.
18.	*Entorno empresarial. Nivel B2*	A final section on cultural differences between Spain and Latin America at the end of the book, raising the learners' awareness of different aspects of culture, values, etc.
19.	*Cultura y negocios*	At the end of every unit, there is a self-evaluation section, which allows learners to reflect on the material and what they have learnt, which is likely to develop their reflection skills and promote cultural awareness. Some tasks also promote reflection, for example, asking the learner whether they would be a successful businessperson in Peru, on the basis of an article about that country.
20.	*Español para el comercio mundial del siglo XXI*	The textbook focuses on Spain and its business culture. Other countries are mentioned in the context of international trade, but without any comparison of cultures.

As shown above, most of the textbooks motivate learners to reflect on the similarities and differences between the native and the foreign culture, either directly, by asking questions, or indirectly, by pointing out certain characteristics of the target language culture which may be different from those of other cultures. However, while some textbooks pay more attention to the intercultural aspects of business language, others, especially the French ones, focus on teaching the target language culture.

Conclusions

In general, the textbooks analysed here present cultural information to different degrees and include a variety of texts and activities. Indeed, all types of intercultural skills, from encyclopaedic knowledge, through oral and written skills, to intercultural awareness, have been observed, but not all of them are equally represented in all the textbooks. Apparently, practical skills can be regarded as the most important, as they will be required of the students at their future workplaces (Reuter, 1997, as cited in Stegu, 2017, Basturkmen, 2006, Zhang, 2013, cited in Section Teaching the Language of Business). By contrast, conveying encyclopaedic information is not an aim in itself; rather, it appears in the context of reading comprehension tasks, statistics about the target language country or countries, etc. For example, *Cultura y negocios* presents different aspects of business in Spain, as well as in the Latin American countries; similarly, *Entorno Empresarial* highlights some differences between Spain and Latin America. Most of the textbooks include units dedicated to selected aspects of intercultural business communication, but they are quite general and only illustrate certain points, for example, *Entscheidungen* contains a unit on international cooperation and intercultural matters, and *English for Business Studies* contains units on cross-cultural management and international trade. In general, if the textbooks contain more specific cultural information, it is focused on the cultures of the target language countries, for example, *Édito Pro*, *Affaires.com* and *Communication progressive du français des affaires* concentrate on French culture. *Intelligent Business* includes a section called *Culture at work* in every unit, but it only mentions the existence of different values, debating styles, etc. and asks the learners about their native cultures. On the other hand, *Market Leader* includes exercises dedicated to culture in almost every unit, for example, filling in the gaps with phrases used in socialising.

However, much of the information related to intercultural competence is subject to implicit rather than explicit learning. The textbooks aim to teach business skills, such as negotiating, making presentations, etc. in accordance with the rules of the target language culture. Similarly, examples of business emails, memos, etc. show how to write such documents in the culture being taught. Such examples can even be found in *Business Vocabulary in Use*, which might seem to focus only on vocabulary. Therefore, even though explicitly cultural information is limited or presented as knowledge about the country or countries where the language is spoken, the types of companies there, etc., quite a lot of cultural information is conveyed implicitly and it is the teacher's role to use such textbooks creatively, select and combine activities and draw the learners' attention to the elements of cultural competence in the textbooks, as well as supplement them with other materials.

Finally, a change in the approach to teaching LSP might possibly be observed, as the oldest textbook, *Wirtschaftsdeutsch von A–Z* (1995) focuses on business terminology, statistics and the comprehension of economic texts, while the cultural elements are mostly encyclopaedic information rather than intercultural communication skills. First, cultural information can be inferred from the context, as the texts present German economy from various angles, including the history of the German industry (e.g., the article on the history of employees' participation in the company's income in Germany from 1840 till the 1990s; Buhlmann et al., 1995, p. 62) and the functioning of small companies, such as local bakeries or a fishing company. Second, the authors do point out that managers need intercultural skills, mention the risk of relying on stereotypes, and quote some stereotypes about Germans from John Mole's book *Euro-Knigge für Managers* as material for class discussion (pp. 66–67). However, as it is the only textbook from the 1990s analysed here, this result should be treated with some caution and merits further research. Perhaps the analysis of more textbooks from that period would answer the question of whether this particular textbook is exceptional, or whether that was the dominant approach at that time.

It is hoped that the present study will make a contribution to research on the teaching of culture in business language courses. However, as the scope of the present article is limited and the topic of culture in LSP business textbooks is vast, the study offers a number of perspectives for future research. For example, future studies might focus on more specific intercultural skills, such as politeness in the model emails and business letters, the ability to observe and analyse the target culture, or the relevance of the model dialogues to real business communication. They might also investigate the rhetorical strategies used in the model business negotiations, the actual effectiveness of the textbook tasks for developing intercultural competence, their relevance to the needs of different kinds of audiences (Business English students, company employees, etc.), etc. Moreover, in addition to qualitative studies, quantitative ones might be carried out, comparing the numbers of particular types of activities in business language textbooks in an attempt to find out whether the differences are statistically significant.

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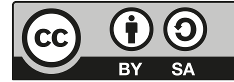

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The Sounds of Conflict: Lexical Representation of Anger in Listening Activities from Modern ELT Coursebooks

Abstract

Modern coursebooks serve a fundamental function in contemporary ELT practice. This paper discusses the problem of the lexical representation of anger in listening activities from selected ELT coursebooks issued by leading publishing companies. Twelve coursebooks from three internationally recognized ELT series for adult learners of English were analysed for the conflictive dialogues presented in their audio materials, as well as for the ways in which the anger of the Speaker(s) was expressed. The result of the analysis shows that Speakers' anger was primarily represented by exclamations followed by a much more limited use of nonverbal vocalisations. No instances of swearing and expletive interjections, a common way of expressing negative emotions in everyday informal communication, were found in the dataset. The analysis confirms some of the observations and criticisms concerning the global ELT coursebooks. While understanding publishers' caution and refraining from advocating unrestricted use of taboo language in recorded ELT materials, this paper points to the importance of realistic representation of conflictive and argumentative interpersonal communication, not just for the aim of presenting different contexts of English use, but also for the practical applications beyond the realm of foreign language learning.

Keywords: ELT coursebooks, listening activities, conflictive dialogues, representation of anger, exclamations, nonverbal vocalisations

In contemporary ELT practice coursebooks issued by global British and American publishers take a primary position. Bolitho (2008) stresses their status of representative "tools of the trade" for English teaching practice and symbols of what happens behind foreign language classroom doors in the public mind.

Contemporary ELT coursebooks produced by major publishing corporations, such as Oxford University Press, Cambridge University Press, Pearson, Pearson Longman, Macmillan, have gained international recognition by many teachers and learners as essential and indispensable sources of English.

At the same time, modern ELT coursebooks are much more than just classroom instructional and educational materials. Skela & Burazer (2021) point out that they exist very much in the public domain, where they are often discussed, examined and evaluated by teachers, learners, and administrative bodies. Gray (2000, 2010) has argued that the coursebooks published in Great Britain and the USA have acquired the status of powerful cultural artefacts, as they present different elements of contemporary English-speaking culture to a wide range of non-native English speakers and learners. This is connected with the transfer of certain social and cultural norms and expectations, including the attitudes of political correctness, the expression of positive interpersonal beliefs and the drive towards the entertaining aspects of learning (Medgyes, 1999). The apparent uniformity in contents and design of moderns coursebooks has been criticised on numerous grounds, including the overrepresentation of polite, agreeable, and cooperative language exchanges at the expense of conflictive communication and argumentative dialogues (Timmis, 2013).

The aim of this paper is to perform a short analysis of how the emotion of anger is expressed in the listening materials from selected ELT coursebooks for adult learners. In order to achieve that, this paper takes several steps. Firstly, the main characteristics of the modern ELT coursebooks for adult learners are briefly discussed in connection with their overall structure, contents, and mode of presentation. Secondly, the issue of anger is introduced and different lexical ways of its representation in language are characterised, including the categories of swearing, exclamations, and nonverbal vocalisations. Thirdly, the results of a short practical analysis are presented and discussed. For this purpose, the author has conducted an exploratory analysis drawing on a dataset of conflictive recorded dialogues from twelve ELT coursebooks included in three internationally recognized ELT series. Finally, the paper is concluded with a summary of results and a few brief remarks concerning the importance of authentic representation of conflictive interpersonal exchanges in contemporary ELT materials.

The Global ELT Coursebook—A Brief Characterisation

Contemporary ELT coursebooks issued by major publishing corporations, such as Oxford University Press, Cambridge University Press, Pearson, Pearson Longman, and Macmillan, have gained worldwide recognition due to their ubiquity, solid

methodological foundations, well-designed contents, and attractive presentation of language materials. Of no lesser significance is the fact that for many teachers who tend to be overworked and underpaid these publications provide convenient and ready-to-use classroom materials (Gray, 2000). The pervasiveness and convenience of "the global ELT coursebook" (Skela & Burazer, 2021, p. 390) is also matched by its structural and thematic uniformity.

As Skela & Burazer (2021) point out, the global ELT coursebooks are structured around a few overarching and commonly accepted criteria. Apart from the course rationale, guiding methodological approach and professional preparation of language materials, the internal cohesion of chapters and sections, and coherence among different levels in each series of coursebooks is of noteworthy consideration for editors and publishers. The same level of cohesion is also expected to operate on the microlevel of individual activities and exercises aimed at presenting, drilling, and testing different aspects of language. Stranks (2013), Masuhara (2013), Hyland (2013), and Hill & Tomlinson (2013) stress that the activities for grammar, reading, writing, and listening reveal considerable similarities in their organisation, form, content and presentation in different ELT coursebooks. In the case of listening activities, for instance, the most common format seems to be listening to dialogues or monologues presented alongside related comprehension questions. Although often preceded with listening for gist, the activities are largely focused on listening to—and subsequent recalling of—specific detailed information. Although a prevalent trend in many coursebooks, this bottom-up approach has been criticised for the apparent lack of global approach to listening, which instead of facilitating learner's engagement and enjoyment in performing listening activities, focuses on recalling and testing specific language elements (Hill & Tomlinson, 2013).

Apart from the issue of the form, a central question for ELT materials development is the one of its contents (Skela & Burazer, 2021). The contents of the global ELT coursebooks are systematically subject to extensive processes of selection, analysis, evaluation, and editing (Tomlinson, 2013b). This is matched with the tendency to edit out potentially offensive, disturbing, or embarrassing materials (Tomlinson, 2013a). Legal restrictions, commercial requirements, and socio-cultural pressures often result in publishers leaning towards the presentation of safe and non-controversial topics, largely excluding possibly disturbing or disruptive elements.

These trends, although understandable to a large degree, have been criticised on the grounds of excessive caution in censoring out potentially controversial, but otherwise possibly engaging, stimulating or discussion-inducing materials (c.f. Wajnryb, 1996; Tomlinson, 2001; Saraceni, 2013). As Skela & Burazer (2021, p. 390) put it: "the advent of the 'global' ELT coursebooks conceived in the 1990s, attempting to capture international appeal, has unfortunately re-

sulted in many coursebooks containing very bland, safe, sanitized, superficially interesting and neutral 'zero-content' topics."

Another area for criticism against the global ELT coursebooks is expressed, for instance, by Carter (1998), Tan (2003), and Mukundan (2008), who point to the attitude of politeness, agreement, and cooperation, which dominates in dialogues and language exchanges included in modern ELT coursebooks to a large extent. On the one hand, this is understandable and expected, as publishers tend to lean towards safe topics and non-controversial materials. On the other hand, however, this ubiquitous culture of positivity in ELT coursebooks points to the possible underrepresentation of impolite, conflictive, and argumentative exchanges, which are likely to occur in real-life interactions and, thus, deserve a place in ELT representation and linguistic research (Bousfield, 2008).

Representation of Anger in Language

Anger, alongside fear, disgust, sadness, happiness, and surprise, belongs to basic human emotions and particular ways of expressing and recognizing these emotions through different human modalities appear to be reasonably universal across cultures (Ekman & Friesen, 1971; Ekman, 1994; Elfenbein & Ambady, 2002). Anger is often described as one's emotional reaction to an event of provocation. Wierzbicka (1999) describes two scenarios of anger in English. In the first scenario (X is angry (with Y)), anger is an individual's emotional reaction to a negative action performed directly by an offender, as in a mother being angry with her child for breaking a precious vase. In the second scenario, Wierzbicka considers the sense of X being angry at Y in a situation when "something bad happened because someone did (or didn't do) something," as in a situation including a cancer patient being angry at God (Wierzbicka, 1999, pp. 87–89). In both scenarios, an individual's anger is directed towards the party responsible for the perceived offense, although the second one (X is angry at Y) typically implies a lower level of control over the situation on the part of X. In both scenarios, however, the emotion of anger urges X to perform a certain action to address the perceived injustice of the situation.

In a similar model, Jay (2000) considers anger as a natural emotional response to an event of provocation. His model of verbal aggression, which—incidentally—does not reference Lakoff's (1987) scenario of ANGER, includes the stages of PROVOCATION, DEGREE OF ANGER, INHIBITION, DISINHIBITION, RETRIBUTION. In Jay's scenario, an event of provocation is experienced and evaluated by the Speaker. The provocation event triggers the rising degree of anger. Under normal conditions, the Speaker attempts to inhibit one's anger, as a result of one's

psychological make-up, cultural conditioning or fear for possible negative consequences. When the rising degree of anger exceeds a certain limit, the stage of DISINHIBITION is reached. At this stage, the Speaker decides on the exact realisation of their retaliatory response. This retaliation constitutes an act of RETRIBUTION for the event of provocation. The retribution is commonly realised by swearing (cursing) or another form of emotional verbal response.

Swearing

Swearing is defined as the use of emotive language in order to express and reflect the Speaker's (usually negative) emotions (Jay, 2000; Ljung, 2011). Swearing may take different forms, including abusive swearing (cursing at someone), cathartic swearing (cussing to let off steam), emphatic swearing (highlighting certain information), and emotive swearing (communicating one's emotions) (Pinker, 2008; Ljung, 2011). Swearing is realised by breaching one or more of cultural taboos, including taboos related to religion, body parts, bodily effluvia, sexual actions, death, and disease. These taboos appear to be universal across cultures. In some languages, however, certain taboos are more explicitly utilised than in others (Allan & Burridge, 2006). Most swearing is formulaic in nature, as it often disregards the standard rules of morphology and syntax, as in *Absobloodylutely!*, *Screw you!*, *What the fuck do you mean?* (Ljung, 2011, pp. 18–20). In the context of alleviating one's negative emotions, Ljung (2011) discusses the category of expletive interjections. These often consist of short linguistic forms used to show speakers' anger or give vent to their emotions, as in *Shit!*, *Damn!*, *Fucking hell!*.

As a use of taboo language, swearing is subject to both external censorship and internal (self-)censoring. External censorship refers to different forms of authoritative actions to eliminate certain elements of language from the public discourse. Self-censoring pertains to speakers' individual psychological inhibitions resulting from the practices of parenting, education, cultural conditioning, and fear of possible negative consequences for engaging in taboo topics (Allan & Burridge, 2006). Thus, on the one hand, there is considerable external and internal negative selection against the use of taboo in language. On the other hand, swearing serves an array of important emotional purposes. In consequence, while taboo speech is routinely censored out of formal written materials, it is of common occurrence in everyday informal communication.

Exclamations

According to Crystal (1995), exclamations are statements which reflect strong emotional reactions on the part of the Speaker. The term refers to a broad area of linguistic expressions. Exclamations may take the form of single words or short phrases, as in *Gosh!*, *Oh, dear!*, *Oh, no!*. However, they may also refer to fully formed sentences conventionally used to express certain emotions, such as a *You must be joking!*, *You're kidding!*, *That's outrageous!* (Wells, 2006, p. 50).

Crystal (2004) also refers to a specific category of exclamatory sentences involving *what-* or *how-* phrases followed by inversion of the subject and the main verb, as in *What a fool he was!*, *What on earth is he doing?*. Such sentences often appear in their abbreviated forms, where the first element is retained, for example, *What a lovely day!*, *What a mess!*, *How nice!*. These forms may serve as substitutes for, respectively, *What a lovely day it is!*, *What a mess they have made!*, *How nice they look!* (Crystal, 1995, p. 219). Finally, Crystal (1995) mentions the category of exclamatory questions, that is, a special type of interrogative sentences which possess the function of exclamations. They express strong (typically positive) emotions on the part of the Speaker and are often used to elicit a specific reaction from the Hearer, for example, *Hasn't she grown!*, *Wasn't it marvellous!*, *Was he angry!* (Crystal, 1995, p. 218).

It is important to recognize that for successful representation of emotions, exclamations must be pronounced with appropriate prosodic features corresponding to a given emotional state. Wells (2006) notes that English emotional exclamations are typically marked by relative high pitch of voice followed by an abrupt fall of tone (*the exclamatory fall*). Other authors report that angry speech in English is commonly correlated with high mean pitch, increased pitch variability, intensified volume and rate of speech, and a reduced number of pauses (Frick, 1985; Bachorowski, 1999; Johnstone & Scherer, 2000; Scherer, et al., 2003; Simon-Thomas et al., 2009). Thus, these prosodic correlates should be expected in the acoustic profile of anger-related exclamations in English for the successful conveying of their emotional significance.

Nonverbal Vocalisations

Goffman (1978) characterises response cries as a form of one's emotional self-talk, aimed not at direct communication with the Hearer, but at reflecting the Speaker's emotional state and serving one's emotional needs by relieving one's psychological pressure or alleviating one's physical pain. Goffman (1978) considers two forms of justifiable self-talk. One of them is expletive interjections (a form of swearing), which are realised by fully-formed, typically short, lexical forms referring to a certain cultural taboo (Ljung, 2011). The other

category of self-talk is realised by nonverbal vocalisations, namely response cries which are not fully-fledged words. Instead, they constitute ritualized and conventionalised emotional expressions in a given language. Since non-verbal vocalisations are used mainly in speech, many of them do not have a single canonical representation in writing. Goffman (1978) provides the following categories of nonverbal vocalisations: the transition display (*Err!*, *Ahh!*, *Phew!*), the spill cries (*Oops!*, *Whoops!*), the threat startle (*Eek!*, *Yipe!*), revulsion sounds (*Eeuw!*), the strain grunt (*Uh!*), the pain cry (*Oww!*, *Ouch!*). Nonverbal vocalisations may also represent a wide range of emotional states, including joy or laughter (*Ha, ha!*), surprise (*Wow!*), disgust (*Yuck!*), awe (*Woah!*), realisation (*Ohhh!*), confusion (*Huh?*). Curzan (2015) discusses the vocalisation *Argh!* as a conventionalised expression for anger and frustration in English. *Ugh!* is commonly connected with the expression of distaste or disgust, but—depending on the context of conversation—it can also be used to express irritation, frustration and anger.

Jay (2000) stresses that nonverbal vocalisations must be matched with the appropriate prosodic features of speech for the successful expression and interpretation of emotions. Thus, angry nonverbal vocalisations in English must be produced with the acoustic profile congruent of the prosodic corelates of anger for the successful conveying of their emotional load.

Practical Analysis

Methodology

The aim of this paper is to perform a brief practical study of how the emotion of anger is expressed on the lexical level in recorded dialogues from selected ELT coursebooks for adult learners of English. The coursebooks under analysis belong to internationally recognized series issued by the leading publishing companies. They include *English File 3rd edition* (Oxford University Press), *Navigate* (Oxford University Press) and *Speakout 2nd edition* (Pearson).

From each series the author chose the coursebooks between the levels of Elementary and Upper-Intermediate, thus focusing on twelve publications in total: *English File 3rd edition* (4 publications: *Elementary*, *Pre-Intermediate*, *Intermediate*, *Upper-Intermediate*), *Navigate* (4 publications: *Elementary*, *Pre-Intermediate*, *Intermediate*, *Upper-Intermediate*), *Speakout 2nd edition* (4 publications: *Elementary*, *Pre-Intermediate*, *Intermediate*, *Upper-Intermediate*).

The empirical study was performed by means of content analysis on official recordings from the coursebooks listed above. Therefore, any audio materials

from related workbooks, teacher books, online activities and other supplementary sources were excluded from the analysis. Each of the dataset coursebooks was studied twice. Firstly, to check if the coursebooks provided appropriate data for the analysis. Secondly, to identify—and subsequently analyse—those audio recordings where the emotion of anger was conveyed.

In order to distinguish the audio samples where anger was expressed by lexical elements, the author selected the recordings of dialogues representing conflictive interpersonal exchanges in which the categories of either swearing, exclamations or nonverbal vocalisations were present. There were three specific research questions that the author aimed to answer in the analysis:

- Which of the three categories for the lexical representation of anger, i.e., swearing, exclamations and nonverbal vocalisations, were present in the dataset audio samples?
- What was the number of samples where each of the above categories was represented in the dataset?
- Which particular lexical expressions were used in the dataset to express angry emotions in the audio recordings?

The contexts of conflictive communication present in the coursebooks under analysis include unhappy customers complaining about a service or a product, personal and business phone calls and meetings, interpersonal arguments and disagreements and emotional reactions over malfunctioning equipment. For each sample cited below a short context and the source of the dialogue is provided. In citing the dialogues, the author relied mostly on the audio scripts included in the coursebooks. Wherever the audio script was not available, it was provided by the author. The added elements are marked by square brackets "[]." Non-essential fragments of dialogues omitted from the conversation were marked with three dots closed in square brackets "[…]."

Results and Discussion

In the analysis of the twelve ELT coursebooks the author identified 20 audio dialogues which included different anger-related exclamations and nonverbal vocalisations for communicating anger. There were nine dialogues in four coursebooks from *Speakout 2nd edition* series, seven dialogues in four coursebooks from *English File 3rd edition* series, and four dialogues in four coursebooks from *Navigate* series. When proficiency levels of the coursebooks were taken into account, the dataset revealed four samples in the coursebooks from Elementary level, four samples from Pre-Intermediate level, six samples from Intermediate level and six samples from Upper-Intermediate level.

Table 1 presents the number of audio samples including exclamations, nonverbal vocalisations and swearing as means of expressing angry emotion in the dataset. The figures in the table are presented in relation to the proficiency levels of the coursebooks they were taken from.

Table 1

The Number of Samples for Different Means of Expressing Anger in Relation to Proficiency Levels of the ELT Coursebooks

	Exclamations	Nonverbal vocalisations	Swearing
Elementary	4	0	0
Pre-intermediate	2	2	0
Intermediate	3	3	0
Upper-intermediate	5	1	0
Total:	14	6	0

It must be noted that the figures provided in Table 1 refer to the amount of audio samples where a particular category for expressing anger was present. They do not refer to the number of particular linguistic expressions showing angry emotions (e.g., the total number of exclamation or nonverbal vocalisations). In the dataset it is possible for a particular audio sample to reveal more than one expression of a given category, as in numerous instances of exclamations in Sample 1, Sample 2, and Sample 3, or multiple occurrences of vocalisations in Sample 5 and Sample 8 below. Moreover, it is possible for one audio sample to include more than one category for expressing angry emotions, as evident in the presence of exclamations and nonverbal vocalisations in Sample 6 and Sample 7.

The dataset analysis revealed two categories for expressing anger: exclamations and nonverbal vocalisations. The category of swearing was not represented in the dataset, as no instances of swearing or taboo expletives were found in the audio samples. This is hardly surprising. Although swearing is of common occurrence in everyday informal speech, it is routinely censored out of formal written materials. This is particularly true for international ELT coursebooks, where the processes of content selection, evaluation, and editing are particularly demanding and extensive. Thus, materials which are potentially offensive, disturbing or insulting tend to be edited out. Swearing, due to its negative emotional load and taboo nature, meets precisely the criteria prompting editors to exclude this kind of language from official ELT materials. Moreover, swearing, as a blatant breach of politeness norms, stands in stark contrast to the attitudes of politeness, agreement, and cooperation, which, as Carter (1998),

Tan (2003), and Mukundan (2008) report, dominate in interpersonal dialogues presented in contemporary ELT materials. Therefore, publishers' preference for polite, non-controversial materials may be a factor adding to the exclusion of elements containing strong negative emotions from official ELT content.

Table 1 revealed that in 14 out of 20 audio samples (70% of the dataset) the emotion of anger was conveyed through the use of different exclamations. Thus, exclamations proved to be the most significant category for the lexical expression of angry emotions in the dataset. The author believes that there are several reasons for this fact. On the one hand, exclamations constitute fully-fledged, grammatically and syntactically well-formed expressions conventionally used for the expression of emotions. On the other hand, due to their non-taboo nature, they are not subject to the same editing constraints as swearing and taboo expletives. Therefore, they provide a viable and convenient way of expressing emotions applicable in official ELT materials.

Exclamations in ELT coursebooks may take various forms, ranging from simple exclamatory expressions to fully-formed grammatical sentences. Consider the following samples:

Sample 1
[Situation on a plane. The flight attendant (S1) brings a meal to a passenger (S2).]
S1: Your meal, sir.
S2: Thank you. Um, excuse me.
S1: Yes, can I help you?
S2: Hope so! I'm sorry, but there's a small problem here. I ordered a vegetarian meal, but this is meat.
S1: Oh, just a moment. I checked and we don't have a record of your order.
S2: **What?!** But I always order vegetarian. I'm a frequent flyer.
S1: I understand, sir, but we don't have any more vegetarian meals.
S2: **I don't believe it!** You always have extra meals in business class.
S1: Yes, but this is economy class.
S2: You don't understand. Let me explain one more time. I don't eat meat. I ordered vegetarian. I can't fly to Tokyo without dinner. It's your job to bring me a meal. A business class vegetarian meal is fine.
S1: Just a moment. Here you are, sir. A vegetarian meal.
S2: Thank you – but this is already open. And it's cold! Can I speak to the person in charge, please? I mean, **this is ridiculous!**
[*Speakout 2nd edition Elementary*: R.9.9]

Sample 2
[Situation at the train station. S1 is a passenger. S2 is the station employee.]
S1: Excuse me. Do you work here?
S2: Yes.
S1: Do you know when the next train will be arriving? I mean, I've been here for over an hour.
S2: I'm sorry but there's nothing we can do at the moment. Everything is delayed.
S1: And you don't know when the next train is coming?
S2: No.
S1: Or why there's a delay?
S2: Snow.
S1: **What**?
S2: Snow on the track. It was the wrong type of snow.
S1: What do you mean 'the wrong type of snow'? **You're kidding, right**?
[*Speakout 2nd edition Pre-Intermediate*: R.10.5, Conversation 3]

Sample 3
[S1 and S2 are a couple visiting S1's parents for dinner. They have arrived late for the occasion]
S1: I can't believe we got here so late.
S2: I'm sorry, Jenny. I had to finish that article for Don.
S1: Don't forget the chocolates.
S2: OK. **Oh no!**
S1: **I don't believe it.** Don't tell me you forgot them!?
S1: I think they're still on my desk.
S2: **You're kidding!**
[…]
[*English File 3rd edition Intermediate*, R. 1.29]

Sample 4
[A heated discussion between S1, S2 and S3 about new parking regulations]
S1: Have you heard about the new parking meters they're bringing in? Apparently, the more pollution your car causes, the more you pay. I think it's a great idea, don't you?
S2: Well, that's not really how I see it. My car is quite old, so I'll have to pay more. I can't afford to buy a new car, so how is it fair to make me pay more for parking as well?
S3: I'm with you here. Everyone should have to pay the same for the same service, or it isn't fair.

S1: **You can't be serious!** Haven't you seen how bad the pollution is these days? We need to encourage people to buy cars which are better for the environment. Or maybe you should just use your cars less in the first place?
S2: Come off it! You use your car all the time ….
[*Navigate Upper-Intermediate*: R.7.4]

The exclamations found in the dataset are of different syntactic structures, ranging from single words (*What?*), through short exclamatory forms (*Oh no!*), to fully-fledged exclamatory statements, as in: *I don't believe it!*, *You're kidding*, *This is ridiculous!*, *You can't be serious*.

As illustrated by Sample 1, Sample 2, and Sample 3, in a single dialogue more than one exclamations may be used by one or more Speakers. Thus, the total number of exclamatory phrases used in the dataset is as follows: *I don't believe it!* (5 instances), *Oh no!* (4 instances), *You're kidding/joking!* (4 instances), *What?!* (4 instances), *This is ridiculous!* (2 instances) followed by single instances of *It's outrageous!*, *You can't be serious!*. Therefore, the exclamatory expressions in the dataset appear to draw from the standard collection of exclamations used by speakers of English in emotion-inducing interpersonal situations.

The dataset analysis revealed that in six out of 20 conflictive dialogues (30% of the dataset) the emotion of anger was expressed through nonverbal vocalisations. The particular response cries for this purpose in the dataset included the use of *Argh!* (in three samples) and *Ugh!* (in three samples). Consider the following examples:

Sample 5
[A couple are talking about their latest expenses.]
S1: I haven't seen those shoes before. Are they new?
S2: Yes, I've just bought them. Do you like them?
S1: They're OK. How much did they cost?
S2: Oh, not much. They were a bargain. Under £100.
S1: **[Ugh]**, You mean £99.99.
S2: **[Ugh].**
S1: That isn't cheap for a pair of shoes. Anyway, we can't afford to buy new clothes at the moment.
S2: Why not?
S1: Have you seen this?
S2: No. What is it?
S1: The phone bill. It arrived this morning. And we haven't paid for the electricity bill yet.
S2: Well, **[ugh]**, what about the iPad you bought last week?

S1: What about it?
S2: You didn't need to buy a new one. The old one worked perfectly well.
S1: But I needed the new model!
S2: Well, I needed some new shoes!
[*English File 3rd edition Intermediate*, R 1.41]

Sample 6
[S1 is calling her friend (S2), with whom she has agreed go to a party together.]
S1: Adrian, where are you? It's nearly half past nine!
S2: Sorry, Tina. Listen, I've changed my mind! I'm not going to go to the party.
S1: **I don't believe it!** You are the most indecisive person I've ever met!
S2: Well, I suppose I could go…
S1: **Aargh!**
[*English File 3rd edition Pre-Intermediate*, R 4.49]

Sample 7
[Conversation at a cash machine]
S1: **Argh! Oh no.**
S2: What's the matter?
S1: Oh. This cash machine's not working. Do you know if there's another machine somewhere? I really need to get some money.
S2: Hmm … I'm not sure. There might be one in the shopping centre.
S1: Thanks.
[*Speakout 2nd edition Intermediate*: R.5.5, Conversation 1]

Sample 8
[Situation at the airport. S1 is the airport assistant. S2 and S3 are a travelling couple]
S1: Yes, sir?
S2: Could you tell us what's happening with flight IB3056?
S1: Flight IB3056 …
S2: Yes, we've been waiting for over an hour and we've heard nothing. All it says on the screen is 'delayed'.
S1: Erm, … I'm afraid the plane has been delayed coming in from Amsterdam, sir…
S2: **[Ugh!]**
S1: Bear with me a minute. I'll just check the latest information on the computer. Erm …
S3: Thank you.
S1: The plane is due to arrive at, er, 10.30 … at the earliest.

S2: But that's over three hours' time!
S1: I'm sorry, sir. And it's likely to be later than that.
S2: **[Ugh!]** This isn't good enough. We've only got a weekend and …
S1: I'm sorry, sir. There's nothing I can do.
S3: And is there any way you could get us onto another flight? We're only going for two days and we've really been looking forward to it. It sounds as if we won't get to Seville till the afternoon.
S1: I'm sorry, madam. Our nine o'clock flight to Seville is full.
S3: What about another airline? Maybe we could transfer to another flight?
S1: I'm really sorry, but that's not possible. It's not our policy except in an emergency.
S2: This is an emergency.
S3: Bill! Oh dear. Couldn't the airline at least pay for our breakfast?
S1: Well, here are two vouchers for free coffee, courtesy of the airline.
S3: Oh … thank you. Come on, Bill, let's go and get some breakfast.
S2: I can tell you, this is the last time I use your airline.
S3: Come on, Bill.
S2: This is the worst experience I've ever had ....
[*Speakout 2nd edition Upper-Intermediate*: R.4.3, Conversation 2]

Anger-related nonverbal vocalisations constitute the minority of the lexical means for the expression of angry emotions in the dataset. The reasons for that may lie in the fact that nonverbal vocalisations do not constitute fully-fledged words. Instead, they are ritualized and conventionalised emotional expressions used mainly in informal speech. Many of them do not have a single canonical representation in writing and their spelling and lexical representation is less rigid than in the case of exclamations. These factors, in connection with demanding and extensive procedures of contents editing and preparation, may lead to them being largely edited out of official ELT materials (Porter & Roberts, 1981).

The practice of editing out certain nonverbal vocalisations may be further substantiated by the fact that in Sample 5 and Sample 8 the vocalisation *Ugh!*, although perfectly discernible in the audio files, had been edited out in the official coursebook transcripts. However, the vocalisation *Argh!*—present in Sample 6 and Sample 7—was consistently represented in the transcripts in writing.

Sample 8 presents an interesting case. The context refers to a conversation between an airport assistant (S1) and an angered passenger (S2). However, S2's spouse (S3) attends the conversation as well. The presence of S3 introduces a significant dynamic whereby S3 tries to mitigate S2's anger in the conversation and prevent S2 from engaging in further violent verbal acts towards S1. Thus, Sample 8 presents not only a conflictive interpersonal context—based

largely on S2's attitude—but it also shows possible and applicable conflict-minimising strategies, as exemplified by S3's involvement.

Conclusions

The aim of this paper was to perform a short study of how the emotion of anger is expressed in recorded dialogues from contemporary ELT coursebooks for adult learners. The analysis was based on listening activities from twelve coursebooks representing three internationally recognized ELT series issued by the leading publishing houses: *English File 3rd edition* (Oxford University Press), *Navigate* (Oxford University Press) and *Speakout 2nd edition* (Pearson). The research was based on conflictive interpersonal audio exchanges wherein the lexical categories of either swearing (taboo expletives), exclamations or nonverbal vocalisations were present. The aim of the study was to identify which of the three categories were present in the dataset, what the number of audio samples for each category was and what particular language expressions were used to convey the emotion of anger. In total, 20 dialogues were identified for the dataset study. The context of these dialogues included interpersonal arguments, complaints about a product or service, personal and business phone calls, and emotional reactions over malfunctioning equipment.

The lexical category which constituted the most significant means of expressing angry emotions in the dataset was exclamations, present in 14 audio samples (70% of the dataset). These included simple exclamatory forms and fully grammatical sentences. The most common exclamations were *I don't believe it!* (5 instances), *Oh no!* (4 instances), *You're kidding/joking!* (4 instances), *What?!* (4 instances). Another way in which anger was represented in the dataset was through the use on nonverbal vocalisations, that is, emotional response cries which constitute conventionalised vocal forms for the expression of emotions. Angry nonverbal vocalizations were distinguished in six dataset samples. *Argh!* was identified in three dialogues, while *Ugh!* was present in three conversations. It must be noted that both exclamations and nonverbal vocalisations must be produced with appropriate prosodic features of speech for the successful conveying of their emotional significance.

The more frequent representation of exclamations in the dataset may be explained by the fact that, in contrast to nonverbal vocalisations, they constitute fully-fledged words and grammatical sentences. Therefore, they provide viable lexical and syntactic forms for expressing emotions and are not subject to the extensive and demanding processes of content preparation and editing.

The category for expressing anger which was conspicuously absent from the dataset were instances of swearing and taboo expletives. This is hardly surprising. Although taboo-based swearing appears to be one of the primary ways of expressing one's emotions in informal speech (Allan & Burridge, 2006; Ljung, 2011), the legal, social, and educational expectations and requirements for global ELT coursebooks exclude this type of language from being representated in ELT materials.

The results of the analysis show that the dataset coursebooks expressed anger in a rather restrained way, with explicit use of exclamations, followed by a limited set of nonverbal vocalisations, without the presence of taboo expletives.

The author believes that these editing decisions should hardly be put into question. Modern ELT coursebook play a central role in contemporary ELT practice. They are expected to uphold certain social, cultural, and commercial standards. With respect to the representation of interpersonal dialogues, they tend to avoid criticism resulting from the inclusion of controversial, disturbing or conflictive materials. On the one hand, this attitude seems reasonable, responsible, and expected. The authors, editors, and publishers of ELT materials are under constant pressure to follow certain legal, social, and cultural requirements. Unrestrained expression of emotions may lead to negative social and legal consequences. On the other hand, conflictive situations constitute an inescapable part of learners' everyday lives. Thus, it seems that the presence interpersonal exchanges showcasing possibly realistic means of expressing anger in modern ELT coursebooks is fully justified. Not only does it serve the purpose of presenting the use of English in argumentative or conflict-inducing contexts, but it also may provide some practical and educational benefits beyond the realm of foreign language learning. For instance, faithful representation of customer complaints may fulfil the educational function of presenting the legal framework of such situations in a specific country. An authentic portrayal of unsolicited business phone calls may educate the listener on one's rights for privacy protection and customer regulations. The context of a personal argument may be presented alongside a psycho-pragmatic analysis depicting the psychological mechanisms of conflict and advising the reader on possibly respectful and conflict-minimising courses of action in a similar scenario. Thus, responsible, and non-offensive, but at the same time vivid and realistic presentation of conflictive and argumentative interpersonal exchanges in modern ELT materials may facilitate learning the standards of behaviour and expressing one's emotions in different social, cultural and legal contexts.

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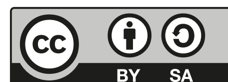

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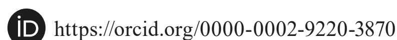

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Impact of Task-based and Task-supported L2 Teaching on the Use of Connective Markers in Learners' Written Performance

Abstract

The current study investigates the impact of two types of instruction on teaching connective markers in learners' written performance. Eighty-two EFL learners were assigned to two experimental groups (EG1, n = 29 and EG2, n = 25) and one control group (CG, n = 28). The experimental groups were introduced to a set of connective markers in two sessions. EG1 followed a task-based approach, while EG2 experienced task-supported language teaching. CG took part in regular classes that were not intended to teach connective markers. The analysis of variance showed that instruction in both experimental groups positively impacted the number and quality of connective markers used in learners' essays, with a slight but non-significant advantage of TBLT in the delayed post-test. The study is timely in that it addresses an inconclusive line of research on L2 pragmatics instruction, investigates the thriving area of task-based teaching, and employs the most often-used type of essay on a nationwide secondary school-leaving examination.

Keywords: L2 pragmatics, TBLT, TSLT, connective markers

In the past forty years, applied linguistics research has given growing attention to L2 pragmatics instruction. Alongside teaching other language subsystems, such as vocabulary, grammar, and pronunciation, the importance of preparing learners to use socio-culturally appropriate language has been generally acknowledged by theorists and empirical researchers (Cutting & Fordyce,

2021; Nguyen & Le, 2019; O'Keeffe et al., 2020; Taguchi, 2015; Taguchi & Roever, 2017; Roever, 2022). One example of L2 pragmatic targets are discourse markers. The literature has widely discussed calls to incorporate them into L2 education (Asadi, 2018; Crossley et al., 2016; El-Dakhs et al., 2022; Shahriari & Shadloo, 2019). Connective markers (or connectives) are a subgroup of discourse markers which are indispensable for written expression in a foreign language (Fraser, 2009; Hall, 2007; Halliday & Hassan, 1976; van Dijk, 1979). These have particularly caught the attention of researchers (Cheng & Tsang, 2022; Chiang, 2003; Crossley et al., 2016; Liu & Braine, 2005; Lu, 2019). Connective markers provide a way to link concepts and sentences together while helping to create a cohesive and organised flow of thoughts. They include phrases such as "First of all," "Therefore," or "Moreover." Studies show that teaching L2 connective markers is feasible; it needs to be clarified, however, what type of instruction is most conducive to doing so.

Around the same time as the interest in L2 pragmatics instruction appeared, different types of task implementation in language pedagogy have also seen a rise in research attention, beginning with the guides of Ellis (2003), Nunan (2004), and Willis (1996) on the implementation of task-based language teaching (TBLT) in a foreign classroom context. In line with the current SLA research and theory (East, 2021; Ellis et al., 2020; Long, 2015; Van den Branden, 2022), the use of tasks seems to be a viable option in L2 instruction. Tasks are employed as both a learning resource and organisational lesson units, while language is regarded primarily as a tool for communication (as opposed to being an object to be studied). A TBLT syllabus focuses on tasks to be performed instead of language structures to be taught, emphasising authentic and meaning-focused tasks rather than vocabulary and grammar items to be presented to the learners. Examples of tasks that can be included in a TBLT lesson are: understanding the weather forecast, filling out a job application, or ordering a takeaway over the phone. Studies have suggested that TBLT can promote second language acquisition through a combination of focus on meaning and focus on form and allowing learners to engage in possibly most natural communication (Ellis, 2003; Ellis et al., 2020; Long, 2015). Hence, the primary goal of any TBLT course is to prepare learners to perform communicative tasks outside classrooms and use language in different social contexts.

A distinction is made between task-based and task-supported language teaching (TSLT). TSLT involves the use of tasks during the concluding stages of a lesson (or a series of lessons) as a means of practising specific linguistic forms. The curriculum is reliant on linguistic structures that are reinforced through the use of tasks. For example, Communicative Language Teaching is a common instance of TSLT, as tasks are implemented to practise the target structures. The PPP (presentation-practice-production) framework can be implemented as tasks draw out learners' use of the target structures (Ellis, 2019).

However, there is lingering uncertainty in the literature about the difference between TBLT and TSLT. As Loewen and Sato (2021) contend, it is up to the field to clear up the terminological confusion. In the current study, TBLT is an approach that combines implicit and explicit instruction, whereas TSLT represents a clearly explicit approach to teaching pre-selected target items.

To this day, research has been scarce on the links between TBLT and L2 pragmatics instruction, and the two have rarely been explored together. The study reported below aims to fill this gap by investigating the impact of TBLT and TSLT on the use of connective markers in for-and-against essays produced by teenage learners of English as a foreign language.

Problem Statement

Both pragmatics and TBLT focus on communication in situated contexts, real-world communicative needs, and conversation objectives (Taguchi & Kim, 2018; Taguchi & Rover, 2017; Roever, 2022). Though there is limited research on the compatibility of these two areas, TBLT's emphasis on the use of language in a given context seems to make it a potentially well-suited approach to L2 pragmatics instruction (Nguyen & Le, 2019).

An example of pragmatic targets that can be addressed through some form of task implementation are discourse markers. There have been calls to incorporate them into L2 pedagogy (Asadi, 2018; Crossley et al., 2016; Dastjerdi & Shirzad, 2010; El-Dakhs et al., 2022; Sarani & Talati-Baghsiahi, 2017; Shahriari & Shadloo, 2019). In particular, connective markers, which are essential to written performance in a foreign language (Fraser, 2009; Hall, 2007; Halliday & Hassan, 1976; van Dijk, 1979), seem to be of interest to researchers (Cheng & Tsang, 2022; Chiang, 2003; Crossley et al., 2016; Liu & Braine, 2005; Lu, 2019). Connective markers (or connectives) provide a way to link ideas and sentences together and help create a cohesive, logical flow of thoughts. They also aid in making written performance more accessible and understandable for the readers. By using connectives, writers can avoid confusion and stay on the topic since they provide structure and help writers avoid rambling.

Aims and Scope

The present study aims to compare the efficacy of TBLT and TSLT in teaching L2 pragmatic targets operationalised here as the connective markers in a for-and-against essay. The study employs a pre-test/post-test design in which 82 intermediate teenage learners of English as a foreign language are assigned to one of the three conditions (TBLT, $n = 29$; TSLT, $n = 25$; and CG, $n = 28$). The findings may guide further inquiry into second language acquisition and provide valuable insights to instructors of additional languages.

Literature Review

Discourse Markers—A General Overview of Pertinent Research

Discourse markers are words, phrases, or short sentences used to convey a speaker's attitude to the topic under discussion, to provide continuity to a conversation, and to signal a transition from one topic to another (Sarani & Talati-Baghsiahi, 2017). These markers help the listener comprehend the flow of the conversation and express the speaker's opinion or attitude. In second/foreign language contexts, discourse markers can indicate the speaker's attitude towards the topic being discussed or signal a change in the direction of the conversation.

A fruitful but still inconclusive line of investigation is the impact of explicit and implicit instruction on the development of L2 discourse (Nguyen et al., 2012; Sarani & Talati-Baghsiahi, 2017). Studies find that explicit instruction in discourse markers can be beneficial for learners to develop their understanding and use of discourse markers in academic writing. For instance, Nguyen et al. (2012) conducted a study to examine the relative effects of explicit and implicit form-focused instruction on the development of L2 pragmatic competence. The study showed that explicit instruction was more effective than implicit instruction in improving the participants' use of discourse markers. Similarly, Escobar and Fernandez (2017) showed that the participants' use of lexical bundles, boosters/hedges, and stance-taking strategies improved after explicit instruction. Additionally, Dastjerdi and Shirzad (2010), Asadi (2018), and Farahani (2019) found that explicit instruction in discourse markers can improve learners' writing performance.

However, El-Dakhs et al. (2022), who conducted a study to investigate the impact of explicit and implicit instruction on the use of interactional metadiscourse markers, found a positive, albeit very limited, influence for the

explicit/implicit teaching condition with the markers of self-mentions, appeals to shared knowledge, directives and questions. At the same time, Kapranov (2018) investigated the use of English discourse markers in written tasks at the advanced beginners' level of EFL proficiency. The study's results showed that implicit instruction positively affected the participants' use of discourse markers in their writing.

The use of discourse markers has also been studied in the context of international postgraduate business students' texts (Alyousef, 2015). The study found that using interactive and interactional markers was a beneficial tool for the students to express their ideas and opinions while engaging in multimodal finance texts. In addition, Darwish (2019) investigated writer-reader interaction in the writing of English L1 and L2 writers. The study found that L2 writers used fewer interactional markers and more interactive markers than L1 writers. This suggests that L2 writers may need to be made aware of how to use interactional markers to create a dialogue with the reader.

In the context of academic writing, it has been found (Lin, 2005; Lotfi et al., 2019) that the use of discourse markers can be beneficial for the writer to indicate their stance towards the topic and to signal transitions between points. In addition, Wishnoff (2000) conducted a study on the acquisition of pragmatic devices in academic writing and computer-mediated discourse and found that using discourse markers can be beneficial for the writer to express their opinion and signal shifts in the conversation.

Connective Markers as a Class of Discourse Markers

A more specific line of research focuses on instruction in connective markers. Connective markers are a subclass of discourse markers (Schiffrin, 1987). They are words and phrases that help to connect ideas and form coherent sentences (Fraser, 2009; Hall, 2007; van Dijk, 1979). Examples of connective markers include words and phrases such as: first of all, secondly, in summary, and consequently. Connectives are essential in academic writing because they can help the reader understand the structure of the text and assist in the development of an argument (Williams, 2012). The types of connectives used in a text depend on the purpose of the writing, for example, whether the writer is trying to compare, contrast, or explain a concept.

It is believed that learners with higher proficiency tend to use more connective markers and display a greater understanding of the function of connectives. Additionally, they are more likely to use connective markers appropriately within their writing (Cheng & Tsang, 2022; Crossley et al., 2016; Liu & Braine, 2005; Lu, 2019). Chiang (2003) and Zhang (2000) showed that the use of cohesive markers significantly affected the perceived quality of writing and

suggested that learners should be encouraged to use cohesive markers in their writing. Yang and Sun (2012) studied the use of cohesive devices in argumentative writing by Chinese EFL learners at different proficiency levels. Results showed that learners with higher proficiency levels used more cohesive devices than those with lower proficiency levels. The study also concluded that the use of cohesive devices positively affected the perceived quality of writing.

Overall, these studies suggest that teaching connective markers to EFL learners is possible and can be beneficial for their writing. It needs to be clarified, however, whether implicit or explicit instruction is more conducive to the acquisition of connective discourse markers.

Task-based and Task-supported Instruction

The first instructional approach to teaching L2 connectives employed in the current study is task-based language teaching. As the name suggests, tasks are essential to TBLT. Over the last thirty years, researchers and promoters of TBLT have offered several definitions of a task (see East, 2021 or Ellis, 2003). While they differ in detail, the general idea is that a task allows for L2 acquisition through obtaining comprehensible input, allowing for output, or encouraging interaction between learners. A task is any situation in which learners must call upon their linguistic resources to perceive or convey some content, such as writing a comment on social media, listening to a podcast, filling out a form, or making a coffee appointment. These are examples of situations where learners need to use language focusing primarily on content rather than form. The teacher responds to problems with form when they arise during task performance. Thus, the task-based approach uses cognitive processes that promote language learning. Learners develop both their explicit and implicit L2 knowledge. They learn consciously and involuntarily (Ellis, 2003; Long, 2015; Nunan, 2004).

In TBLT, tasks are differentiated from exercises. While exercises require the use of language to perform a language-focused activity, tasks require language to perform a meaning-focused activity. Exercises may involve multiple matching, gap-filling, paraphrasing, or a cloze test. Language is used for the sake of completing the exercise; it has no communicative function. In a task, learners have to use language to achieve a goal that is beyond just the use of language, for example, understanding a voicemail message, watching a video, or reading a book. Learning a language is a by-product of using it. According to the criteria of a task (Ellis & Shintani, 2014), the primary focus of a task is on meaning, learners should experience some communication gap and rely on their own linguistic resources to complete the gap, and the outcome of a task is other than the use of language.

A typical TBLT lesson follows the so-called task cycle (Ellis, 2003; Willis, 1996). The pre-task phase involves activities conducted prior to the task itself, serving as an advanced organiser for learners. These activities include activating background knowledge through brainstorming or mind mapping related to the task topic, observing model task performances, engaging in similar tasks, or allowing time for task planning. The during-task phase focuses on the task itself and the options available to learners. Teachers can choose to let learners work independently or set time limits. Additionally, teachers can determine whether learners are permitted to access input data during the task. The introduction of surprising elements into a task is also an option. The post-task phase involves procedures for following up on task performance with three primary goals: providing an opportunity for task repetition, encouraging reflection on task performance, and fostering language-focused attention (Ellis et al., 2020).

The second instructional approach used in the study below is task-supported language teaching. It is based on a structural syllabus in which the teacher pre-selects specific lexical-grammatical features (e.g., connective markers), provides learners with an explicit explanation of when and how to use them and then offers mechanical exercises. The learners perform the task only after these initial stages (Ellis, 2019). An example of a TSLT implementation can be seen in Communicative Language Teaching (CLT), where certain tasks are integrated into the curriculum for the purpose of practising specific target structures. TBLT often adopts the traditional presentation-practice-production (PPP) framework, employing focused tasks to elicit learners' application of the target structures (Ellis, 2019).

The main difference between TBLT and TSLT is that the former follows a task cycle and moves from implicit instruction and/or scaffolding in the pre- and while-task phases to explicit language-focused activities in the post-task phase (i.e., only after the learners have had the chance to perform the task). TSLT, on the other hand, provides explicit instruction in the initial phases of a lesson and uses tasks in the last stage of the lesson as an opportunity for free practice. However, current scholarship still exhibits some ambiguity regarding the interpretation of these terms, and it is the responsibility of the field to address and clarify the terminological confusion, as concluded by Loewen and Sato (2021) and East (2021).

The Study

The current study concerns teaching connective markers in the context of a foreign language classroom. It aims to investigate the efficacy of TBLT

and TSLT in developing EFL learners' ability to use connective markers in the written production of for-and-against essays. To the best of our knowledge, no previous research has addressed the impact of the two types of instruction on connective markers, although various studies investigated the extent to which implicit and explicit approaches impact the teaching of connectives (see Literature Review). The research question entertained in the study can thus be phrased as follows: what is the effect of the two types of instruction on teaching L2 connective markers?

Participants

The sample group for this research consisted of 82 (nationality) secondary/high school students who were learning English as a foreign language. They were selected for the study as part of convenience sampling, as they all shared the same level of proficiency and were taught by the same person. All of the participants were 15 years of age during the study. In addition, they had already been exposed to English for a minimum of five years in their primary school education. The students had five hours of English classes per week at the secondary school, but the study was conducted when they were beginning their first grade. This means that their teacher had taught them for two months, having conducted about 20 classes of 45 minutes each. The EFL program followed an eclectic framework prior to the study and was based on the *Focus 3* coursebook (MM Publications). The participants' proficiency at the time of the study could be categorised as B1/intermediate (according to the CEFR scale) or Novice High (according to the ACTFL rating). The level has been established based on the "Focus 2E placement test," an online test on a "Pearson eDesk" platform.

Instrument and Procedure

The study was implemented among 82 homogenous intermediate EFL learners who were assigned to two experimental groups (EG1, $n = 29$ and EG2, $n = 25$) and one control group (CG, $n = 28$). The participants in EG1 and EG2 received different types of instruction in connective markers (i.e., TBLT and TSLT, respectively), whereas the participants in CG attended their regular classes. A for-and-against essay was used as a data collection tool since this is the most often used type of written production in a school-leaving exam required for the completion of secondary education and university entrance.

The instructional treatment described in this section took place during the learners' regular class hours. Data collection was carried out at three points in time, following the pre-, post-, and delayed post-test design. Thus, the inter-

vention in weeks 1, 4, and 6 was the same in all three groups, that is, the learners were asked to produce a for-and-against essay. No access to dictionaries or reference materials was allowed. The aim was to keep the time of intervention and the materials used as similar as possible in the studied groups to minimise interference from other covariates (see Table 1 for a summary).

In week 1, all three groups were asked to write a for-and-against essay on the benefits and drawbacks of mobile phones. This was used as a pre-test. Learners' essays were later analysed for the number of connective markers used. The learners were informed that the essays would be returned to them at a later date. This was done in week 2 in EG1 and EG2 and week 3 in CG. The essays were, however, not corrected by the teacher. Instead, learners were encouraged to self-correct them (details of this procedure are included in descriptions of treatments in particular study groups).

In week 2, EG1 followed a TBLT lesson format. The first session took 90 minutes (two 45-minute lessons in a row). The pre-task phase included an introduction to the topic of the essay (i.e., to shop or not to shop at the weekends). The learners were asked to brainstorm their ideas (first individually, then with a partner). Some of their ideas were elicited by the teacher and put on the whiteboard. Then the pairs of learners were asked to discuss their ideas with other pairs thinking about both the positive and negative aspects of weekend shopping. The teacher monitored and provided reactive feedback if needed. The main task phase of the lesson included a jigsaw reading activity of an exemplary for-and-against essay. The learners received the model essay previously divided into six fragments (introduction, two arguments for, two arguments against, and a conclusion). They had to work with a partner to arrange these parts in a coherent whole. The text included bolded connective markers (see Appendix 1). This was followed by a brief teacher-led discussion on how a for-and-against essay should be composed to follow a logical structure. No explicit instruction on the use of connective markers was given, but some of the learners asked about the meanings of "therefore" and "not only… but also." The teacher explained the meanings of these terms using L1 equivalents. One of the learners asked why some parts of the text were bolded. The teacher briefly explained that these phrases help organise the text. The learners were then asked to answer several comprehension questions. In the post-task phase of the session, the teacher distributed learners' essays which they produced in week 1. The essays were not marked and the learners were asked to analyse them and try to self-correct in light of what had been said about the structure of a for-and-against essay. The learners were encouraged to use dictionaries and ask the teacher for help. After about twenty-five minutes of this silent work, the teacher asked the learners to refer to the sample essay and try to clearly organise and link their thoughts. The teacher then collected the improved versions of the essays.

In week 3, one session in EG1 was devoted to teacher-led feedback on the essays written by the learners. Special attention (apart from language errors) was given to the structure of a for-and-against essay and the use of connective markers. The teacher focused on the function of connectives and suggested a number of alternative markers. The learners were asked to analyse their essays for the use of connective markers and suggest improvements, especially in the essay written in week 1. Then the learners completed a multiple-choice test in which they had to choose the most appropriate connective marker. The same procedure was adopted in EG2 in week 3.

EG2 followed a TSLT lesson framework in week 2. Learners' attention was explicitly drawn to the target phrases. First, learners were provided with explicit instruction on how to write a for-and-against essay with a particular focus on L2 connective markers. The teacher provided the learners with a sample essay (the same as in EG1), discussed its structure, and drew learners' attention to the use of connective markers, explaining their role in making the text more cohesive. Next, the learners were asked to brainstorm alternatives to the connectives in the sample essay and their ideas were put on board. Then, the learners were given a multiple-choice test (the same as in week 3 in EG1) in which they had to decide which discourse marker best fits a given sentence. The learners were then asked to answer comprehension questions related to the sample essay. A discussion on weekend shopping followed. Then, the learners were handed in their unmarked essays from week 1, which they were asked to self-correct (following the same procedure as in EG1). Week 3 of the intervention followed the same procedure as in EG1, that is, explicit language-focused activities related to the composition of a for-and-against essay.

CG followed their coursebook in week 2. They took part in a lesson devoted to formal and informal ways of apologising (see Table 1).

In week 4, one session was devoted to a post-test in which the learners were asked to write a for-and-against essay on the benefits and drawbacks of living in a big city.

In week 6, the three groups were asked to produce an essay on the benefits and drawbacks of replacing traditional education with digital learning.

Table 1
Procedure in the Studied Groups

Week	EG1 (TBLT)	EG2 (TSLT)	CG
1	Pre-test: Write an essay about the benefits and drawbacks of a mobile phone (45 minutes)		
2	Pre-task: brainstorming and discussion (20 minutes); Main task: jigsaw reading task, comprehension questions (25 minutes); Post-task: self-correction of the for-and-against essay from week 1 and a multiple-choice test (45 minutes).	1. Explicit instruction on the structure of the essay and the role of connective markers (10 minutes). 2. Multiple-choice test (10 minutes). 3. Reading task: comprehension questions and a discussion (15 minutes). 4. Self-correction of the for-and-against essay from week 1 and a multiple-choice test (45 minutes).	1. Teacher writes up different examples of apologies on the board. Learners are asked to think of a time when they have had to apologise to someone and what they said to apologise. 2. Learners look at the examples of apologies and decide which ones are formal and which ones are informal. They explain why they think this. 3. Learners come up with their own examples of formal and informal apologies in small groups. 4. Role-play of a situation in which learners apologise to someone. 5. Learners write a short dialogue between two people, one apologising and one accepting the apology (two 45-minute sessions).
3	Feedback and language focus (45 minutes).	Feedback and language focus (45 minutes).	Self-correction of the essay from week 1 (45 minutes).
4	Post-test: Write an essay about the benefits and drawbacks of living in a big city (45 minutes).		
6	Delayed post-test: write a for-and-against essay about the benefits and drawbacks of replacing traditional education with digital learning (45 minutes).		

Statistical Analysis and Results

The collected for-and-against essays from all the groups were first analysed for the use of connective markers. The researchers read the essays independently and identified all instances of connective markers. A point was awarded for the correct use of a given marker, that is, when the connective was used appropriately and following standard English rules. The inter-rater reliability was measured using percentage agreement and yielded 96%. The first rater's data was used in the analysis. The number of connectives for each learner from all

three data collection times was entered into an Excel sheet which was later transferred to the JASP package.

The Shapiro-Wilk tests indicate the *p*-values are all below .001, yet skewness and kurtosis are < 1 indicating a normal distribution of data. The data also satisfied the homogeneity of variance assumption ($p > .05$ in Levene's test). The standard deviation for all conditions is relatively low, suggesting that the data is relatively consistent.

In the next step, within-subjects effects were calculated. Since repeated measures violated Mauchly's assumption of sphericity, the Greenhouse-Geisser correction was applied to the F-statistic. The results of repeated measures ANOVA indicated that there was a significant difference between the mean scores of the groups with respect to the number of connectives used (see Table 2).

Table 2

Within-subjects Effects

Within subjects effects								
Cases	Sphericity Correction	Sum of Squares	df	Mean Square	F	p	η^2	η^2_p
number of connectives	None	275.660[a]	2.000[a]	137.830[a]	506.204[a]	< .001[a]	.326	.865
	Greenhouse-Geisser	275.660	1.703	161.835	506.204	< .001	.326	.865
number of connectives ✻ group	None	150.451[a]	4.000[a]	37.613[a]	138.140[a]	< .001[a]	.178	.778
	Greenhouse-Geisser	150.451	3.407	44.164	138.140	< .001	.178	.778
Residuals	None	43.020	158.000	.272				
	Greenhouse-Geisser	43.020	134.564	.320				

[a] Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

The within-subjects effect revealed a significant main effect of the written test F (2, 158) = 506.204, $p < .001$, $\eta^2_{partial} = .865$. The partial eta-squared value indicates that the effect size is large, indicating that the number of connectives used significantly affects the mean scores of the groups. Additionally, the results suggest that there is a significant difference between the groups with respect to the number of connectives used when accounting for the effect of the group. F (4, 158) = 138.140, $p < .001$, $\eta^2_{partial} = .778$ indicates that the

difference is statistically significant. The effect size is medium, indicating that when accounting for the effect of the group, it significantly affects the number of connectives used.

With regard to between-subjects effects, Table 3 indicates that intervention was a significant factor F (2, 79) = 309.840, $p < .001$, $\eta^2_{partial} = .887$.

Table 3

Between-subjects Effects

Between-subjects effects							
Cases	Sum of Squares	df	Mean Square	*F*	*p*	η^2	η^2_p
group	333.100	2	166.550	309.840	< .001	.394	.887
Residuals	42.465	79	.538				

Note. Type III Sum of Squares

This suggests there was a significant difference between the three groups in terms of the outcome variable, and the differences between the groups are unlikely to be due to chance. Furthermore, the effect size is large, indicating a strong effect.

Since the ANOVA results proved to be significant, post hoc testing was carried out using the Holm-Bonferroni correction (see Table 4). To illustrate the magnitude of differences between the groups, Cohen's *d* was used to assess effect sizes. These were interpreted as small (.40), medium (.70), and large (1.00) (as per Plonsky & Oswald, 2014).

Table 4

Post hoc Comparison (Group)

Post hoc Comparison—group										
			95% CI for Mean Difference					95% CI for Cohen's d		
		Mean Difference	Lower	Upper	SE	t	Cohen's d	–4.803	Upper	p_{holm}
pre-test	post-test	–2.386	–2.583	–2.188	.082	–29.217	–3.972	–4.212	–3.142	< .001
	delayed post-test	–2.084	–2.282	–1.886	.082	–25.521	–3.470	.161	–2.727	< .001
post-test	delayed post-test	.302	.104	.499	.082	3.696	.503		.845	< .001

Note. *p*-value and confidence intervals adjusted for comparing a family of 3 estimates (confidence intervals corrected using the Bonferroni method).

Note. Results are averaged over the levels of: group

The post hoc test compared the mean difference between pre-test, post-test, and delayed post-test for the number of connectives. The results show that the mean difference between pre-test and post-test was -2.386, and between pre-test and delayed post-test –2.084. The mean difference between post-test and delayed post-test was .302. The *p*-value for the test was less than .001, indicating that the differences between the pre-test, post-test, and delayed post-test were statistically significant, with the pre-test and post-test having the largest difference with a Cohen's *d* of –3.972.

Table 5

Post hoc Comparison (Number of Connectives)

Post hoc Comparisons—Number of Connectives										
			95% CI for Mean Difference					95% CI for Cohen's *d*		
		Mean Difference	Lower	Upper	SE	*t*	Cohen's *d*	Lower	Upper	p_{holm}
CG	TBLT	–2.423	–2.697	–2.149	.112	–21.603	–4.034	–4.942	–3.126	< .001
CG	TSLT	–2.489	–2.773	–2.204	.116	–21.366	–4.144	–5.079	–3.208	< .001
TBLT	TSLT	–.066	–.348	.217	.116	–.569	–.109	–.580	.362	.571

Note. p-value and confidence intervals adjusted for comparing a family of 3 estimates (confidence intervals corrected using the Bonferroni method).
Note. Results are averaged over the levels of: the number of connectives

Finally, as evidenced in Table 5, there is a statistically significant difference between CG and TBLT ($p < .001$) and between CG and TSLT ($p < .001$), but there is not a statistically significant difference between TBLT and TSLT ($p = .571$). Specifically, the results show that the mean difference between CG and TBLT is –2.423. This difference is statistically significant ($p < .001$). The mean difference between CG and TSLT is –2.489, and again this difference is statistically significant (*p* <. 001). The mean difference between TBLT and TSLT is –.066, with a 95% confidence interval between –.348 and .217, and this difference is not statistically significant ($p = .571$).

Table 6 shows descriptive statistics for three groups: EG1, EG2, and CG, across three points in time: pre-test, post-test, and delayed post-test.

Table 6
Descriptive Statistics

Descriptive Statistics									
	pre-test			post-test			delayed post-test		
	CG	EG1	EG2	CG	EG1	EG2	CG	EG1	EG2
Valid	28	29	25	28	25	29	28	29	25
Mean	2.464	2.552	2.640	2.464	6.280	6.069	2.286	5.862	5.760
SD	.508	.506	.490	.508	.678	.799	.460	.693	.663
p	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001	< .001

The three treatment groups had similar numbers of participants and similar distributions of scores on the pre-, post-, and delayed post-test. The mean scores for EG1 and EG2 are higher than in CG, indicating that the intervention had an overall positive effect. The mean scores for EG1 and EG2 show an increase in the post-test and delayed post-test relative to the pre-test, suggesting that the treatments are effective.

On the pre-test, CG had the lowest mean score of 2.464, while EG2 had the highest mean score of 2.640. Similarly, on the post-test, EG2 had the highest mean score of 6.069, while CG had the lowest mean score of 2.464. On the delayed post-test, EG1 had the highest mean score of 5.862, while CG had the lowest score of 2.286.

Discussion

The main goal of the present study was to assess the impact of TBLT and TSLT on the written production of connective markers of 82 intermediate EFL learners who produced three different for-and-against essays in three time periods (before the intervention, directly after it, and two weeks later). EG1 followed a TBLT task cycle in which implicit instruction was provided in the pre-, and main-task phases, and explicit instruction in the post-task phase (following Ellis, 2003). EG2 experienced a pre-task explicit instruction of the target structure as in TSLT (Li et al., 2016). CG took part in their regular coursebook-based classes.

The results showed a statistical difference between the groups concerning the number of connectives used and revealed that the type of intervention significantly affected the number of connectives used. The most significant differences, as expected, were reported between the pre- and the post-test. A sta-

tistically significant difference was observed in favour of EG1 and EG2. In the delayed post-test, there was a slight but not statistically significant ($p = .571$) difference in favour of EG1. In other words, both types of instruction (TBLT and TSLT) brought about similar positive results.

Looking at the findings of SLA research in general, there is a consensus (de Graaff & Housen, 2009; Norris & Ortega, 2000; Spada & Tomita, 2010) that instruction is effective and facilitates the rate of ultimate achievement in language learning. The finding that both experimental groups reported significant gains following instruction is also in line with Li et al. (2016) in that treatments that involve attention to the form of the target structure are more effective than focus-on-meaning-only conditions where there is no such attention. However, Li et al. (2016) found the more explicit TSLT condition to have a greater effect than other conditions. Previous research into L2 discourse markers (e.g., Asadi, 2018; Dastjerdi & Shirzad, 2010; Escobar & Fernandez, 2017; Nguyen et al., 2012) also showed that explicit instruction was more effective than implicit instruction in improving the participants' use of these target features. In fact, investigations into the effectiveness of L2 pragmatics instruction in general (Jeon & Kaya, 2006; Plonsky & Zhuang, 2019; Ren et al., 2022) found that, on the whole, explicit instruction was more effective than implicit approaches. However, the current study found that the implicit/explicit condition (EG1) was also effective for the acquisition of connective markers.

Although SLA meta-analyses provide converging evidence for the advantage of explicit over implicit instruction, some researchers (e.g., Doughty, 2003; Goo et al., 2015) point out that these results might be an overestimation resulting from the bias of explicit testing of L2 knowledge and short intervention periods which put implicit learning at a disadvantage. In the current study, both TBLT and TSLT conditions had similar effects, although descriptive statistics and post hoc comparisons showed that it was the combination of implicit and explicit instruction, as in EG1, which proved to have a slight advantage in the delayed post-test. In a similar study to the current one, which targeted metadiscourse markers, El-Dakhs et al. (2022) also reported a positive but limited influence of the implicit/explicit condition on the markers of self-mentions, appeals to shared knowledge, directives and questions. Perhaps more extended intervention periods of implicit/explicit instruction might benefit attainment more than explicit-only conditions. The findings of a statistical meta-analysis (Li, 2010) suggest, for instance, that while the immediate and short-term effects of explicit feedback are greater, the long-term effects of implicit feedback are larger, more enduring, and increasing over time. Pawlak (2022) maintains that in foreign language classrooms with learners who have limited exposure to the target language, instruction should commence with explicit knowledge at the beginner level. However, more priority should be given to productive activities, interactive communication, and corrective feedback. He further asserts that at

higher proficiency levels, a gradual transition to a task-based syllabus should occur, with learners focusing on the meaning of language while concurrently paying proactive and reactive attention to its form.

Previous research findings (Cheng & Tsang, 2022; Crossley et al., 2016; Liu & Braine, 2005; Lu, 2019) also pointed to the fact that the more advanced the learners, the more effective the instruction was. Perhaps the fact that the learners in the current study were not beginners helped them benefit more from pragmatic instruction. The results might have been different with lower proficiency learners, although it is debatable whether the knowledge of connectives would be of primary importance to them.

Conclusion

The current study aimed to investigate the effect of two types of intervention, namely TBLT and TSLT, on the development of connective markers in the written production of a for-and-against essay of 82 intermediate Polish learners of English as a foreign language. Connective markers were chosen as the targets of the study as they help link ideas and sentences together to create a cohesive and logical flow of thoughts, and the for-and-against essay was used as a data collection tool since it is used as part of a secondary school-leaving exam.

Our findings indicate that instruction in both experimental groups positively impacted the number and quality of connective markers used in learners' essays. This suggests that instruction is effective and facilitates attainment. It remains to be seen, however, whether explicit or a combination of implicit/explicit conditions is more feasible for teaching connective markers. Previous research on L2 pragmatics instruction pointed to the advantage of explicit over implicit instruction. The current study did not investigate an implicit-only condition but used a task-based condition which proved as effective as task-supported language teaching. Therefore, some caveats are in order.

First, given that random sampling was not employed in this study, readers should consider that the participants were intermediate English learners when assessing the relevance of the findings to lower-level learners or second-language contexts. Jeon and Kaya's (2006), Plonsky and Zhuang's (2019), and Ren et al.'s (2022) meta-analyses have established that more proficient learners benefit more from pragmatics instruction. With regards to discourse markers, research (Cheng & Tsang, 2022; Crossley et al., 2016; Liu & Braine, 2005; Lu, 2019) has also found a similar relation. Future research should investigate the effects of such instruction on lower-level learners.

Secondly, this study focused on teaching English as a foreign language, a dominant trend in SLA studies. Future studies should explore the teaching of other languages. This is especially true since task-based principles should, in theory, apply to the teaching and learning of any second or foreign language (Shehadeh, 2019).

Thirdly, this research was based on a short-term intervention, so a longitudinal study of the effects of the two types of instruction may provide a more detailed understanding of their effectiveness. In particular, since the long-term treatments seem to favour implicit learning (Doughty, 2003; Li, 2010).

Finally, it should be highlighted that the linguistic forms targeted in the instruction were predetermined and not derived from the use of language, which is the approach recommended by task-based language teaching theorists (Long, 2015). Therefore, future studies ought to focus on the effects of instruction based on forms that emerge from language use.

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Appendix 1

A For and Against Essay

It is commonly known that doing the shopping at weekends has become very convenient these days in Poland. A great number of people go shopping on Sundays and they cannot imagine this could be different. There are those who believe that purchasing things should not take place then. **Therefore**, the question arises whether shops should be open at weekends or not?

This cannot be denied that there are a lot of advantages of shopping at weekends. **Firstly**, the one who is busy can spend long hours walking around a mall to find the best products. **Additionally**, one can take their friends or family and choose from various forms of entertainment. Besides, stores attract customers by holding sales at the weekend. Thus, it is a sin not to take advantage of it.

Opponents point out that there are more drawbacks to weekend shopping rather than benefits. Someone once said "the quickest way to know a woman is to go shopping with her," and this quote appears to be true in the times of consumerism. **First of all**, a shopping mall is treated like a meeting point, and the majority of people are inclined to admit they do it just to kill time. **Not only** do shop assistants need to stay at work, **but also** they cannot spend leisure with their families. **Moreover**, it is a vicious circle if everyone goes to commercial centres and helps this phenomenon to implant into everyday routine.

To sum up, there are different points of view on whether weekend shopping is good or bad. I personally believe that shopping centres ought to be closed, and there is enough time to buy items on a daily basis. Most European countries do not have problems with that, so why should we?

(adapted from: www.gettinenglish.com/rozprawka-za-i-przeciw/)

1. What are the advantages of shopping at weekends? 2. What is the reason why some people oppose weekend shopping? 3. What is the opinion of the author regarding weekend shopping? 4. How do people usually use shopping malls? 5. What is the current situation regarding weekend shopping in most European countries?

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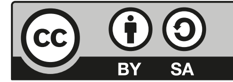

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Facilitating Learning of Generation Z Learners towards Effective Remote English Language Learning

Abstract

As remote English language learning has become widespread in the context of the global pandemic, it is essential to understand effective pedagogical practices specifically with the Generation Z population (born between 1997 and 2012) from economically less developed communities. Using a survey research design, the study identified the preferred remote teaching-learning modality and techniques among 75 Generation Z learners. An online survey was administered to randomly selected Junior High School students in the Philippines. The results revealed that synchronous learning was believed to be more helpful in enhancing the students' English language learning, with techniques that encouraged them to speak and practice their grammar. Interactive group activities were mostly preferred by the learners to enhance their viewing, reading, listening, and writing skills. The study concludes with a discussion about teaching-learning techniques for teachers to successfully carry out a meaningful, enjoyable, and engaging learning experience toward effective remote English language learning.

Keywords: ESL, Generation Z, remote learning, synchronous, teaching modality, techniques

Facilitating student learning is one of the crucial and challenging roles of an educator. It is a way in which teachers encourage their students to learn and receive information in a manner that is meaningful and relevant to them. It means creating a more engaging classroom, where teaching objectives are met and where learners can demonstrate what is required of them at the end of every learning experience. In short, it is where the teachers make the learning process more manageable for students. But how about in the remote learning setup brought by the COVID-19 pandemic? How can teachers effectively facilitate remote learning during challenging times?

Educators worldwide have started adopting various pedagogical practices that suit the needs of the present time. These practices range from conventional or face-to-face to online delivery of instruction. For instance, De Leon and Ortega-Dela Cruz (2024) found that web-based instruction contributes towards improving the students' academic performance. Similarly, Muir et al. (2022) found that online interaction is instrumental in influencing student engagement and positively affecting student satisfaction, persistence, and academic performance. Facilitation strategies such as teachers' timely response to questions and feedback on assignments/projects were perceived to be helpful in student engagement and learning in online classes (Martin et al., 2018). Meanwhile, in an investigation into the implementation of video conferences, learning management systems, and mobile applications, particularly during the emergency remote teaching/the COVID-19 pandemic, the use of Google Classroom was found to be beneficial among EFL college students (Amin & Sundari, 2020; Azhar & Nayab, 2018). Other researchers experimented with the use of other forms of virtual classrooms such as WhatsApp (Asmara, 2020; Nihayati & Indriani, 2021) and Zoom (Suadi, 2021). Although these studies are useful for general guidance, it is important in our context of the Philippines to understand the attitudes and challenges of students in economically less developed communities. Furthermore, we bring a specialized focus on students from the Generation Z group, as there has been less focus on this group, and there has been more research on the experiences of teachers than students. Thus, this study focuses on determining the learning preferences of this group of students and will contribute to the understanding of how they will be engaged in synchronous and asynchronous modes to enhance their English language learning in remote settings. The study will also contribute to the existing literature by providing empirical evidence on the use of technology in pedagogy for other communities in the Global South or similar age groups beyond just the Philippines as remote learning becomes more widespread.

The Philippine Education System in Times of the Pandemic

The Philippine education system, which has been generally characterized by a learning process that takes place in a physical environment, was forced to shift its pedagogical approach to remote learning due to the occurrence of the recent global health crisis. The Philippine Department of Education (DepEd, 2020) considered online and remote learning modes of teaching and learning to avoid the further spread of this COVID-19 infection in schools.

Although remote learning in the Philippines has long been practiced at some tertiary and secondary levels, criticism of its effectiveness has been persistently recurrent as the minimal interaction between the students and teachers cannot guarantee the students' motivation and learning progress. The substantial lag in communication has always been perceived as the biggest challenge in remote learning in the country (Torres & Ortega-Dela Cruz, 2022; Ramoso & Ortega-Dela Cruz, 2024).

Even before the pandemic, the Philippine education system had already been assessed as relatively ineffective. For instance, the 2014 National Achievement Test (NAT) and the National Career Assessment Examination (NCAE) showed low scores in English achieved by Filipino students (San Juan, 2019). Moreover, in 2018 the Organization for Economic Cooperation and Development (OECD) Program for International Student Assessment (PISA) reported a decline in the academic performance of Filipino students. They ranked 79th in reading comprehension out of 79 countries (OECD, 2019). With the shift to online and remote learning, which often provides inadequate interaction between teachers and learners, the Philippine education system could only be expected to aggravate further.

The current status of the Philippine education system signals the struggles and challenges of the teachers in facilitating the learning process, particularly in the area of English language learning. In this regard, the abrupt shift to remote learning was a complete leap of faith for the Filipino people. With the onset of the pandemic, there was no other way but to adapt accordingly. That being so, concerns have been placed on taking advantage of remote learning. Providing an engaging and motivating atmosphere for students via remote learning has become even more challenging for teachers.

Generation Z Learners

Another factor that adds to this pressing concern is the nature and characteristics of the present Generation Z learners. Generation Z (born between 1997 and 2012), as defined by Dimock in 2019, ages from seven to 22. According

to Del Giudice (2013), members of this generation have been characterized as being technologically savvy, having grown up in an age where computers, mobile phones, and the Internet are part of mainstream culture and society. They are quite comfortable with "multiprocessing," and often do several things simultaneously, such as listening to music, talking on the mobile phone, and using the computer (Brown, 2000). It has been suggested that this generation of learners is more resilient to major change (Ortega-Dela Cruz, 2020) since they were born and raised in the digital world (Postolov et al., 2017).

Schwieger and Ladwig (2018) described Generation Z learners as people who are used to a world where they can instantly connect and have information and communication channels immediately at their fingertips. Thus, this generation group generally prefers to socialize online rather than face-to-face. This generation grew up having access to search engines and the habit of finding information for themselves (Merriman & Valerio, 2016).

Students in this generation exhibit distinct learning preferences that involve teamwork, experiential activities, and the use of technology (Oblinger, 2003; Brown, 2000). Shatto and Erwin (2016) suggest that Generation Z members spend up to nine hours a day on personal cell phones, making them increasingly dependent on mobile technology for their learning. Yet, the students often seem to be unable to analyse the validity of information and critically use the information they receive. Therefore, educators play an important role in developing their students' creative, productive, and social potential for Generation Z students to become able to adjust to and cause change, problem solve, collaborate, and comprehend diversity. According to Kalantzis and Cope (2016), formal learning for Generation Z must be: (a) deliberate and explicit, (b) structured and goal-oriented, and (c) analytical.

Albeit the literature provides discussion about the nature of Generation Z, how they relate to remote learning practices needs to be studied empirically. Understanding how their being technologically adept could be an advantage in remote learning setup. Besides, we must develop geographical and cultural specificity by looking at these learners in diverse countries. Thus, there is a need for further research in this area. This study will focus on this generation of learners in the Philippines. Specifically, it explores how their English language learning can be facilitated effectively in remote learning setups with limited resources.

Remote English Language Learning Modalities

The learning delivery modalities that the Philippine Department of Education (DepEd Order Nos. 12 and 13 s. 2020) provided in the Leaning Continuity Plan 2020–2021 include modular, online, and a combination of modular and online

(blended-earning approach). Amid the pandemic, all cities and localities having the highest COVID-positive cases in the country had to adopt any of the three types of remote learning modality, whereby parents could decide what type of remote learning was most appropriate for their children. Since most elementary pupils were from poor or rural communities, they opted to use government-provided printed materials called modules, digital learning resources, and through regional radio and TV-based educational broadcasts (DepEd Order No. 13, 2020). The learning context used in this study focused on the synchronous and asynchronous online modes.

Asynchronous ESL Learning

Finol (2020) describes this type of remote ESL learning where students are independently learning at different times and spaces at their own pace. They are provided with learning materials such as modules, workbooks, worksheets, and textbooks that aid them in their independent learning process. In this learning, the modality has one common communication channel that gives them access to the learning materials, including email, learning management system (LMS), for example, Moodle, and other social media platforms.

Synchronous ESL Learning

This type of ESL learning requires real-time online interaction between teachers and students using specific online platforms to collaborate in video conferencing, live streaming lectures, and chats using Google Classroom, Google Meet, Zoom, MS Teams, and other platforms (Wintemute, 2021). This resembles face-to-face classes but is taking place in a virtual environment. Students are given interactive learning opportunities as they allow for immediate question-and-answer sessions (Hrastinski, 2008).

Blended ESL Learning

Since not all students in the Philippines have access to reliable technology and the Internet, a flexible learning approach to students keep them up with their education despite the COVID-19 pandemic. Given the fact that the Philippines generally have unreliable internet provision, the education system presses for a blended approach, a combination of asynchronous (offline) and synchronous (online) learning.

According to Ancheta and Ancheta (2020), synchronous sessions can be recorded and used in the asynchronous model. This allows students to access the recordings at any time during their independent learning hours. A study conducted by Perveen (2016) found that asynchronous learning combined with

synchronous sessions was beneficial for L2 learners. This is because, in asynchronous mode, students get ample time to read, reread, and practice before composing their written answers. Synchronous sessions can add pressure to respond immediately. Assignment writing polishes the reading and writing skills of students whereas synchronous sessions can improve their listening and speaking (Wang & Chen, 2009). Therefore, synchronous sessions should be scaffolded with asynchronous sessions for deep learning (Perveen, 2016).

According to Shahabadi and Uplane (2015), there is a significant difference between the learning preferences of students in the mode of "synchronous-asynchronous" remote learning. Thus, determining the learning preferences of students engaged in synchronous and asynchronous modes would help teachers select teaching-learning techniques and subsequently enhance their students' English language learning in remote settings more effectively.

The study specifically aims to (i) determine the preferred remote teaching-learning modality among Generation Z learners, and (ii) determine the preferred teaching-learning techniques to facilitate remote English language learning among Generation Z learners.

Methodology

Study Participants

The participants of this study were junior high school (JHS) students studying at a private school in Laguna, Philippines. JSH is the lower secondary education in the country, and it covers four years (grades 7–10). JHS is a requirement for upper secondary education (Senior High School, SHS), which provides access to higher education and secondary vocational education. The private school was purposively chosen for it is one of the schools that offers pure online learning during the conduct of the study. Its students come from relatively well-off families who can afford a private school. The study included 75 students which accounted for 50% of the entire JHS student population at that particular school (N = 150). A total of 25 students in Grade 7, 10 students in Grade 8, 22 students in Grade 9, and 18 students in Grade 10 participated in the online survey (described in the following section). The researcher employed convenience sampling of the respondents as the students' participation was voluntary in nature. That is, those students who are available and willing to participate in the study. The researcher sought permission from the school principal, who together with the teachers helped recruit the student participants. The researchers also sought consent from the students and explained to them the objectives of the study. They assured the

students their participation was voluntary and in no way negatively affected their status as learners. The learners could withdraw at any time if they felt uncomfortable with their participation in the online survey.

The students belonged to Generation Z, often described as the Internet Generation or iGen, Nexters, or the Digital Generation (Raines, 2002). Their ages ranged from 12 to 17 years old. Fifty-five percent of them were female and 45% were male. They were all from the same economic background: lower middle class in rural communities. In terms of their academic performance in English, most of them had grades that ranged between 88 and 100. This means their level of academic performance in the English subject they took at school was either "Very Satisfactory" or "Outstanding."

Data Collection and Analysis

This study used a survey to determine the most preferred remote teaching-learning modality and techniques that facilitate ESL learning among Generation Z learners. Surveys are used to gather the opinions, beliefs, and feelings of selected groups of individuals, often chosen for demographic sampling (Nardi, 2015, in Ortega-Dela Cruz, 2020). This study included demographics such as age, sex, grade level, and academic performance of the students (see Appendix A). The survey was based on extensive literature reviews from various sources such as textbooks and other online resources. Before its use, the instrument was reviewed by three education specialists who were familiar with the various online teaching modalities. They evaluated the statements and made sure that each statement successfully captured the research topic and problem. The validation process resulted in a slight alteration in the contents of the survey questionnaire.

The survey questionnaire was composed of two parts:

- The first part was made up of two close-ended questions with pre-determined responses. This part determined the Generation Z learners' preference for the online learning modality that affects their English language proficiency and teaching techniques that help them enhance their ESL learning.
- The second part included pre-determined responses which referred to the students' preferences for teaching-learning techniques that help them to be more engaged in remote learning.

The questionnaire was distributed by the researchers via email. Once the school's principal provided permission to carry out the research, the JHS advisers were contacted to administer the survey to 75 JHS students. The students were asked to click on a link in the email, which gave them access to the online survey. The researchers assumed that students would not be intimidated by the identities of educators as the administrators of the survey (including the

teachers/advisers) did not have direct access to student responses nor engaged with them while they filled in the questionnaire. That is, they were only given the link (to an online survey) that they sent to students' email addresses. Since students did not identify themselves or emailed them back directly from their email accounts, we believe that they were open to expressing their attitudes. The respondents provided their answers in English.

As for the analysis of the survey data, descriptive statistics, such as the calculation of the mean, frequency, and percentage distribution, were used. Furthermore, data gathered from the open-ended questions were analysed using content analysis.

Results and Discussion

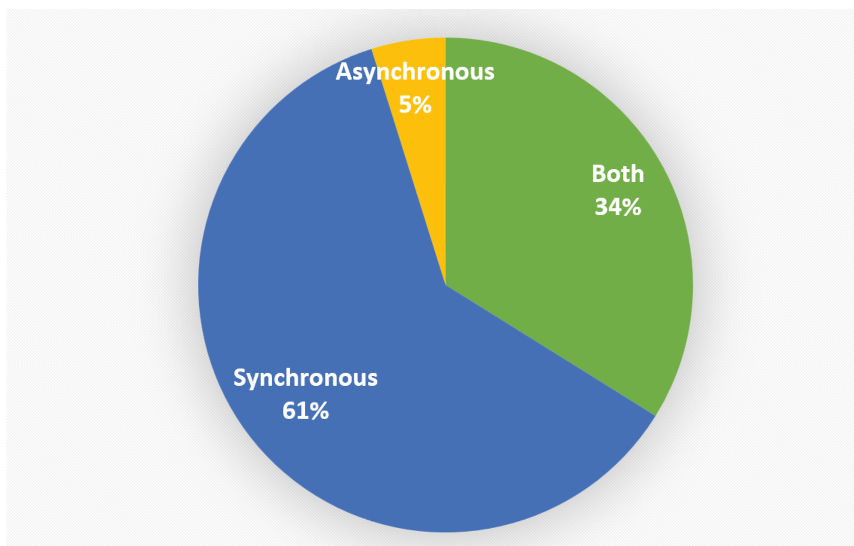
First, we provide the results of the survey before we discuss the implications.

Generation Z Learners' Preferences for Remote Teaching-Learning Modality

Figure 1 presents the learning modality preferences of the participating Generation Z learners studying English in remote learning. As the figure shows, only four students (5%) preferred the asynchronous sessions in remote learning. According to these learners, watching TV and listening to the radio expanded their vocabulary and broadened their factual knowledge.

Figure 1

Remote Learning Modality



On the other hand, 46 students (61%) preferred synchronous learning sessions. Synchronous learning helped them better understand the lessons with the teacher's guidance, as one of the respondents commented:

> In online, I can ask the teachers about the lessons I can't understand fully, and I am quite sure that they'll give the exact answer to my questions. In offline I'm still able to learn but I will not be able to understand the lessons fully. Yes, I can search for some lessons, ask my parents, and watch some videos on YouTube about the lessons but I think online is better than offline."

According to these 46 students, synchronous learning gave them more personal and real time with the teacher which enabled them to interact more with their teacher and classmates. Having someone with whom they could interact allowed the students to learn and understand the lesson well. Accordingly, it affected them when someone on the other side of the screen responded to their questions. They had the assurance that there was somebody ready to respond to their queries and concerns at any time. Likewise, the sense of being monitored online pushed them to study more, which was good for them. The students were encouraged to listen attentively, speak up, and respond to the teacher's questions accurately. The students also received immediate corrective feedback from their English teachers who were in constant check of their sentence construction in English.

The remaining 25 students (34%) preferred both synchronous and asynchronous sessions for remote learning. These students found the combined learning modality helped them learn more effectively by both watching educational videos by themselves and by listening to online teaching where they can ask and clarify facts with the teacher. As student D mentioned:

> I like both because, in online classes, I can easily ask my teacher about unclear instructions and for some clarifications. This helps even my shy classmates to tend to know the answers as well. Whereas, offline can boost me to answer the activities on my own.

Twenty-five of them agreed that they learned many things such as how to speak fluently, listen actively, and write English composition effectively by reading and watching but they like being taught directly by teachers. Their teachers served as their guides as they discovered new things on their own via the Internet. Both learning modalities affected their learning in the same way.

According to Mohr and Mohr (2017), Generation Z grew up in the Information Age. While they are comfortable with technology to access the abundance of resources, they might need guidance in how to sift, sort, and synthesize information to check the accuracy and evaluate information. Because

of technology and internet access, the student's learning modalities become more versatile. Since English is a common medium of instruction used on the internet, it provides a variety of ways for students to learn the English language effectively.

Generation Z Learners' Preferences for Remote English Language Teaching-Learning Techniques and Activities

Sixty-four learners (86%) agreed that clarifying the meaning of English words and unfamiliar concepts when discussing difficult topics helped them understand the lessons clearly (Table 1). Fifty-seven (76%) of the student-respondents agreed that when teachers provided lectures outline, objectives, and practiced exams, they were more likely to perform well academically. Similarly, 58 students (77%) agreed that watching videos or movies related to the topic stimulated their learning.

Forty-eight students (64%) suggested that at the start of a discussion, interactive online activities, like brain teasers about the lesson helped them to connect with the teacher and fellow students. Before the examination, they suggested having a specific review session, such as a quiz bee game, to help them remember the concepts and topics in a fun and interesting way. In terms of projects, including challenging individual or group activities, the deadline for submission should not be rushed to give them more time to learn and master the lesson content. Moreover, 15 students commented that aside from group activities, there should also be an individual presentation or activity to make sure that everyone understands each lesson. This will also prevent others from relying on their group mates in doing class activities.

Furthermore, to improve engagement in remote learning, the participating Generation Z learners suggested several engaging activities. Sixty-one students (81%) preferred to have (1) ice breakers that helped stimulate their engagement in the discussion. (2) Playing videos and (6) games to introduce the lesson like (4) charades, and (3) using virtual field trips that showcase people, objects, places, concepts, or ideas related to the topic were also perceived as an effective technique to get their attention and engagement in remote learning.

Table 1

Students' Preferred Remote English Language Teaching-Learning Techniques and Activities

Techniques	Frequency	Percentage
1. In difficult topics, clarify the meaning of unfamiliar English words and phrases in the context to ensure understanding.	64	86
2. Watching English videos or movies related to the topic to encourage attention and interest.	58	77
3. Teachers providing lecture outlines, objectives, and practice exams.	57	76
4. In all subjects, introduce first the main idea of the lesson before the discussion.	48	64
5. Teachers providing online references of journals, books, and research related to lessons.	43	58
6. Taking detailed notes in every class.	40	53
7. Teachers teaching slowly and in short-time sessions.	39	52
8. Watching educational vlogs related to English lessons and sharing opinions in class.	36	48
9. Peer-tutoring or group study time to review weekly lessons.	33	44
10. Using collaborative activities to encourage brainstorming.	30	40
11. Generalization of lessons in each class.	28	37
12. Assigning a daily study partner to compare notes and discuss concepts.	28	37
13. Writing a summary of daily learning and experiences to monitor performance.	22	29
14. Giving prompt feedback on the student's academic performance every session.	20	27
15. Reading English news articles, current events, and existing national issues related to topics in different subjects.	18	24
16. Having shorter lecture times and longer group activities.	17	23
Activities		
1. Using icebreakers to stimulate student engagement.	61	81
2. Showing videos to introduce topics.	47	63
3. Virtual field trip to places that can be related or to be used in the topic.	42	56
4. Playing charades to introduce the topic.	40	53
5. Using quality audio, strong lighting, Zoom backgrounds, and catchy music for transitions between activities.	40	53

Techniques	Frequency	Percentage
6. Playing videos and games.	40	53
7. Having daily learning targets/goals.	40	53
8. Illustrating what students have learned instead of giving quizzes and Q&A.	39	52
9. Using polls and any interactive technologies to get a serve of students' experience, comprehension, and reaction.	38	50
10. Using collaborative activities or any exit slips to encourage learning takeaways.	34	45
11. One-on-one or small group meetings.	34	45
12. Debates between students or groups of students.	33	44
13. Posting answers to activities after class (wrap-up).	32	42
14. Elaboration using WHY and HOW questions about the topic of the day.	30	40
15. Short discussion or lecture time, longer activity, and study time.	29	39
16. Short activity and study time, longer discussion, or lecture time.	27	36
17. Using a diagram of learning in summarizing the topic.	24	32
18. Combining words with pictures and diagrams.	24	32
19. Using virtual role-playing to assess students' comprehension of the topic.	23	31
20. Synthesizing the whole concept discussed using 3 examples.	17	23
21. Peer-sharing and peer-grading after every class.	14	18

According to Rothman (2016), these preferences are also true for the learning environment where Generation Z learners rely on online resources and PC recordings instead of taking notes. They tend to raise questions online, see a lecture as "come and entertain me," and do not like waiting for a response but demand instant information and communication. The author has identified teaching-learning techniques that Generation Z need to improve their learning and performance. These include fast delivery of content, learning by doing, interactive multimedia, integration of continuous grading, instant feedback, clear goals and objectives, rewards, challenges, and positive reinforcements, teaching in smaller "bites," problem-solving, sharing opinions in small discussions, work in teams, creativity and collaboration are natural to them, flexibility to learn in the way that works best for them, they need options to choose from, so learning needs to be personalized. These are what make them more reflective and independent learners than other generations (Ortega-Dela Cruz, 2020).

Having an icebreaker before the lesson was mentioned by Welcomer (2020) as an effective strategy to keep the students engaged in remote learning. The author allows an open social time on Zoom before she delivers her lecture to support the student's social and emotional needs, and this has given a 100% attendance most days for her remote lessons.

In this study, 33 (44%) students suggested that having group study or a learning partner encouraged them to focus on their studies. As each one has limited free time to spend online so they ought to be more engaged in the learning process. They also suggested having "show me" board activities like showing a short video clip related to the lesson to encourage everyone to stay focused and alert in all the learning episodes the teacher facilitates. As two students commented:

> Student A: I think learning remotely would be more engaging if teachers were to make the students have fun in group activities. For example, after watching a funny video that is related to the topic, an enjoyable group activity follows.

> Student B: Teachers simplify difficult lessons by providing related videos that would help explain the topic more clearly. Also, by being considerate on giving requirements teachers can provide support to us who are having hard times at home, in studying, in thriving to survive amidst this pandemic.

Welcomer (2020) suggested that being clear, caring, and flexible on the part of the teachers and school in terms of requirements and deadlines is not only compassionate in these challenging times for families but is essential to make remote learning work.

Implications

This study has provided insights into Generation Z learners' perceptions of how remote English language learning was beneficial to them. The results of this study revealed specific teaching-learning modalities and techniques that were believed to be effective in engaging the students while enhancing their English language learning. As the results showed, synchronous learning was believed to be more engaging. Interactive group activities were mostly preferred by the learners to enhance their viewing, reading, listening, and writing skills. Synchronous learning sessions may be considered by educators to plan based on the students' needs. While the results of this study have similarities with the findings of the previous studies, especially on the use of online instruction in English learning, it particularly emphasizes how the two different modalities

such as synchronous and asynchronous learning contribute to enhancing the student's English language proficiency. As the demands for the use of information, communication, and technology are increasing rapidly, skills in the use English language have become critical more than ever. In addition, the study directly relates to what constitutes effective remote English language learning to Generation Z learners who tend to be the major source of human capital for this era not only in the Philippines but in other countries around the world. Thus, developing them to the fullest will boost their natural resilience to navigate the challenges of the new normal and become successful in whatever path they may take in the future.

With the realization of what facilitates the learning of Generation Z learners, we propose the following recommendations for English language teachers teaching online:

– *Provide more lecture outlines and online learning materials and sources*. Teachers should provide guidance and reliable sources to help the students easily determine what information they need to look for and to learn.
– *Provide ways to deliver experiential teaching and learning*. Teachers should provide opportunities to students to experience the "real world of work" in the context of learners, like hosting a meeting, resource-speaking in a webinar, or anything that would enhance their English communication skills and boost their confidence in public speaking. Teachers should incorporate virtual discussion forums, peer collaboration, and group projects to foster a sense of community and promote social interaction.
– *Facilitate more interactive learning activities*. In English language learning, interaction among students would be encouraged using speaking activities, like sharing short stories, playing guessing games, and oral spelling bee, that would enable them to practice their diction and pronunciation. Collaborative activities are very much preferred by Generation Z learners. Teachers should come up with activities in which the students could practice and enhance their English language learning in reading, viewing, listening, speaking, and writing. They must utilize multimedia, gamified elements, and interactive exercises to cater to Generation Z's visual and interactive learning preferences.
– *Provide teaching aids to students.* One of the suggestions given by the respondents is to have videos for English lessons. These would also be helpful for students to learn the proper pronunciation, diction, and intonation needed for a specific English lesson. They should leverage adaptive learning platforms to tailor content and pacing to individual learners, ensuring a more engaging and personalized experience.
– *Give ample time to finish the complex and tedious individual or group activities*. This is also one of the suggested teaching-learning techniques by the students, as the current situation is already stressful as it is.

– *Provide continuous assessment***.** Teachers should implement regular formative assessments and instant feedback mechanisms to maintain motivation and track the progress of students.
– *Professional development for educators*. To successfully navigate the challenges of remote English language instruction, educators must engage in ongoing professional development. Online educational methods, technology integration, and tactics to enthuse and inspire Generation Z students should all be covered in training.

Conclusion

As the use of remote and distance learning modalities has become part of the new normal education system, student interactions with teachers and peers are critical to the learning situation. In this world of constant educational change, understanding the nature and characteristics of learners is a must. Hence, determining the ways by which this generation of learners is being facilitated in today's mode of learning is equally important. It is imperative to ensure that they are being motivated to be as equally active as they are in the physical classroom. Thereby, teachers will find themselves actively facilitating effective remote English language learning across generations of learners.

In relation to the limitations of the study including the exclusive focus on Junior High School students in the Philippines, which may limit the generalizability of the findings to other age groups or populations in different countries. Additionally, the relatively small sample size of 75 participants could also affect the generalizability of the results. Therefore, further studies are recommended using larger sample size and randomized experiments to further explore other variables or factors that facilitate English language learning of Generation Z learners. Looking at how remote learning facilitates students' ESL learning in the case of public schools will help widen the perspectives as to how such a learning setup can be adopted to enhance the English language learning of the students in the new normal.

Facilitating effective remote English language learning for Generation Z learners is a multifaceted endeavor that requires a deep understanding of their unique characteristics and preferences. By leveraging the benefits of remote learning and employing tailored strategies, educators and institutions can empower Generation Z learners to develop strong English language skills in a virtual environment, equipping them for success in an increasingly digital world.

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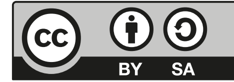

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Acquisition of L2 English Negative Quantifiers without Equivalent Lexical Items in an L1

Abstract

This article investigates how second language learners interpret a scope bearing item in the target language. According to Sprouse (2006), L2 learners' task is to relabel their native language's lexical items in line with the features of the target language. An interesting lexical item is the English negative quantifier, for which there is no equivalent in Japanese. It was discovered that the default interpretation of the English negative quantifier by Japanese-speaking learners of English was a narrow scope reading (i.e., Quantifier Raising (QR) does not occur). We follow Beghelli and Stowell's (1997) elaborated functional structures for quantifier feature checking at Spec-Head agreement. Because Japanese is considered to be a "no agreement" language (Kuroda, 1992; Fukui & Sakai, 2003), QR is failed since the English negative quantifier cannot satisfy "agreement" for the feature-checking. Hence, even if the equivalent lexical item does not exist in Japanese, a grammatical constraint such as "no agreement" is transferred to the initial state of the second language (Full Transfer in Schwartz and Sprouse, 1996).

Keywords: second language acquisition, full transfer, full access, Japanese, English, quantifiers

Phenomena

The interpretation of quantifiers is different from a referential expression. Compare the following two sentences:

(1) John saw Bill.

(2) John saw every student.

Unlike (1) where *John* and *Bill* are referential expressions, *every student* in (2) is not. Namely, *every student* does not express a specific individual. Rather, it is a variable x which is bound by *every*. The scope properties of operators such as quantifiers must be syntactically represented (Haegeman, 1994, p. 491). And this is represented at Logical Form (LF) whose level encodes logico-semantic properties such as quantifiers (Haegeman, 1994, p. 491). An operator such as quantifiers has to occupy a scope position which is a left-peripheral position. To do so, the quantifier must be moved to a scope position (Quantifier Raising = QR) (Haegeman, 1994, p. 491):

(3) $[_{IP}$ every student*i* $[_{IP}$ John saw x*i*]]

More than one quantifier appears in a sentence, and such a sentence is ambiguous:

(4) A nurse looks after every child in this hospital. (S > O, O > S)
(Lee, Yip, & Wang, 1999, p. 40)

The above example (4) means that there is a particular nurse that looks after every child in this hospital (S > O reading) or that every child is looked after by a nurse in this hospital (O > S reading). In other words, the subject quantifier takes scope over the object quantifier and vice versa. Quantifier scope is determined by c-commanding relations at LF. In the Government and Binding (GB) framework, at Case positions at S-S, Quantifier Noun Phrase (QNP) moves to distinct scope positions at LF (May, 1977, 1985). Beghelli and Stowell (1997) call QR the Uniformity of Quantifier Scope Assignment:

> "The Uniformity of Quantifier Scope Assignment (Scope Uniformity)
> Quantifier Raising (QR) applies uniformly to all QPs. Neither QR nor any particular QP is landing-site selective; in principle, any QP can be adjoined to any (non-argument) XP."
>
> (Beghelli & Stowell, 1997, p. 72)

However, they depart from Scope Uniformity due to empirical reasons.

(5) a. Some tourists visited all the museums.
b. Some tourists visited every museum.

(Lee, Yip, & Wang, 1999, p. 41)

Although *all* and *every* are semantically similar, inverse scope is highly marked in (a), but it is available in (b). Beghelli and Stowell examined different behaviors of quantifiers and proposed distinct scope positions (we will come back to their structure). Each quantifier moves to the Spec position of the respective functional structure of the clause for feature-checking in the minimalist framework.

However, a language such as Japanese does not allow such ambiguous interpretations in the English equivalent as follows:

(6) Every horse didn’t jump over the fence.
a. None of the horses jumped over the fence. (every > not: *every* takes scope over *not*.)
b. Some horses jumped and some didn’t. (not > every: *not* takes scope over *every*.)

(7) Dono-uma-mo fensu-o tobikoer-are-nakat-ta
which-horse-Q fence-ACC jump-can-not-past
every > not, #not > every

Japanese is a scope-rigid language, so the surface order (or surface c-command) is the only available interpretation (Hoji, 1985). Hence, it is very interesting to ask how the learners of each language would acquire the relevant scope interpretations of the other language. Namely, English-speaking learners of Japanese must unlearn ‘not > every’ reading, while Japanese-speaking learners of English must learn ‘not > every’ reading. A fundamental task that learners of a second or a foreign language (henceforth L2 learners) must undertake is to acquire vocabulary in the target language. L2 learners must learn pronunciation as well as the relevant meanings and properties of the target lexical items. In the seminal work, Schwartz and Sprouse (1996) propose the Full Transfer/Full Access (FT/FA) model. This assumes that the initial state of the second language acquisition is the final state of the first language acquisition (FT). Hence the first language grammar (i.e., all the principles and parameter valued in the Ll grammar) is carried over to the initial state of the second language. Then, with the available data, the second language learners have to restructure the grammar to represent a target language, drawing from available options of UG (FA) (Schwartz & Sprouse, 1996, p. 41). Let us say that this is a UG-based approach.

Furthermore, Sprouse (2006) observes that L2 learners' task is to relabel the lexical items of their native language in the target language. An obvious relabeling task is to learn the pronunciation of the target language. A subtle but important aspect is to learn the morphological, syntactic, and semantic properties of the relevant lexical item in the L2 based on available L1 lexical items. Interesting questions emerge. If the lexical item is a scope bearing item that does not exist in their L1 language, are they able to learn ambiguous interpretations? If it is (or it is not) possible to acquire ambiguous interpretations, what are the implications for second/foreign language theory? These are the research questions in the present paper. It will be investigated how Japanese-speaking learners of English interpret the English negative quantifier since there is no equivalent in Japanese (Goro, 2007, p. 161).[1] Consider the following:

(8) The election of nobody surprised me.
  a. Nobody at all was elected, and that was surprising.
  b. Of those elected, none of them surprised me.

(9) Nobody's election surprised me.
  a. #Nobody at all was elected, and that was surprising.
  b. Of those elected, none of them surprised me.

(van Hout, Kamiya, & Roeper, 2013, p. 138)

(8a) is the narrow-scope reading in which *nobody* takes scope in its post-nominal position. (8b) is the wide-scope reading in which *nobody* takes scope over *election*. On the other hand, (9) is called passive nominals where *nobody* moves from the post-nominal position to the sentence initial position (van Hout et al., 2013, p. 143). Unlike (8), example (9) is unambiguous: only the wide-scope reading is available (van Hout et al., 2013, p. 138). We will review the details of this mechanism in (8) and (9) later.

Hence, Japanese-speaking learners of English must learn the relevant mechanism. Based on our survey conducted for Japanese-speaking learners of English, it is claimed that the default interpretation of the English negative quantifier is narrow scope reading. This indicates that Japanese-speaking learners of English fail to acquire ambiguous interpretations (or QR). As Schwartz and Sprouse claim, there are factors that contribute to L2 development: the initial state, input, the apparatus of UG and learnability considerations (Schwartz & Sprouse, 1996, p. 41). Our data is very rare in corpora. Hence, the availability of the relevant

[1] a. *nai-hito-ga kita
  no-one-NOM came
  'No one came.'
 b. *nai-mono-o tabeta
  no-thing-ACC ate
  '(I) ate nothing.'

input may be a source of failure. Studies such as Kimura (2019; 2022) or Wu and Ionin (2021) also report that learners of English whose native language is a scope-rigid language fail to acquire QR. In those studies, there are equivalent lexical items (such as negation or universal quantifier) in their native languages, unlike our study. However, it is also reported that English-speaking learners of Japanese are more successful learning Japanese type of scope interpretations (Grüter, Lieberman, & Gualmini, 2010; Marsden, 2009). These studies point out that English is a semantically superset language (both surface and inverse scope readings), while Chinese and Japanese are subset languages (only surface scope reading) and that learners whose native language consists of the subset reading experience considerable difficulties acquiring the target interpretations. Therefore, we claim that the frequency of the relevant input is not the only factor contributing to the failure of acquiring QR. Having a superset interpretation of scope interpretation plays an important role for the successful acquisition of QR. Then, what does it mean to have both superset and subset interpretations? Following Beghelli and Stowell's elaborated functional projects for quantifiers, we claim that Japanese is different from English in terms of "agreement." Namely, Japanese does not follow Spec-Head agreement for feature checking, as Kuroda (1992) and Fukui and Sakai (2003) among others claim. As a result, Japanese native speakers only access the subset interpretation. Such a "no agreement" system applies to a lexical item in a second language. Although there is no English negative quantifier in Japanese, it is "no agreement" that forces Japanese-speaking learners of English to reach the subset reading. Hence, agreement plays an important role for acquiring a scope bearing item in the second language.

Note that the UG-based approach is not the only approach for second language acquisition. Rothman and Slabakova (2018) explain that UG-based scholars "investigate acceptability and interpretation through eliciting judgments" (Rothman & Slabakova, 2018, pp. 434–435). On the other hand, the usage-based approach, another account for second language acquisition, "predominantly looks at corpora and linguistic production" (Rothman & Slabakova, 2018, pp. 434–435). They account for the different approaches in terms of the different interests. UG-based scholars are concerned with learners' mental representation, while usage-based scholars are interested in what learners do with language (Rothman & Slabakova, 2018, p. 435). Although the approaches are different, Rothman and Slabakova claim that "a neutral reading of the conclusions shows both approaches are not so different" (Rothman & Slabakova, 2018, p. 435). Tan and Shojamanesh (2019) report that it is not clear whether grammatical learning is done by usage-based approach or universal grammar-based approach. They suggest that it is worthwhile to investigate the parameters and variables such as the role of L1 transfer, the interaction of the L1 in L2 input, or the impact of L1 on L2 proficiency levels among others in second language acquisition. The present paper does not aim to compare the UG-based theory

with alternative ones. Rather, we assume poverty of the stimulus argument (Chomsky, 1986; Hornstein & Lightfoot, 1981, among others). An example such as (6), (8), and (9) can hardly be found in a corpus. However, native English speakers come to understand that it is ambiguous. Given that there is not much obvious data, how can native speakers come to understand the relevant meanings? In terms of learners of English, could they acquire such interpretations without much evidence? This is the reason why we would like to approach the current problem set by the UG-based theory.

This paper is structured as follows: The previous studies section will review the relevant previous studies. In particular, we will review L2 studies of scope interactions in which ambiguous sentences form a superset and a subset relation. In the quantifier raising, passive in nominalization and interpretations section, we will summarize the mechanism as to how the English negative quantifier is interpreted as wide scope and narrow scope interpretations, based on van Hout, Kamiya, and Roeper (2013). In the prediction section, we will make a prediction with regard to whether Japanese-speaking learners of English acquire the English negative quantifier. In the participants and procedures section, we will explain the survey design and analysis. In the result section, we will report the results of the present study. In the discussion section, we will discuss the implications for L2 learning processes based on the survey results. In the conclusions section, we will conclude this paper.

Previous Studies

One of the most influential studies in (generative) second language acquisition is Schwartz and Sprouse's (1996) Full Transfer/Full Access (FT/FA) model. In this model, "[...] the entirety of the L1 grammar (excluding the phonetic matrices of lexical/morphological items) is the L2 initial state (hence the term 'Full Transfer')" (Schwartz & Sprouse, 1996, p. 41). Hence, all principles and parameters valued in the learner's L1 are carried over as the initial state of the L2. Therefore, the task of L2 learners is to reset the values in their L1 based on the target language. However, resetting the values is not random. Rather, options are provided by UG (hence Full Access) (Schwartz & Sprouse, 1996, p. 41). Schwartz and Sprouse also claim that each intermediate state of restructuring grammar is a distinct interlanguage (grammar). To support the FT/FA model, Schwartz and Sprouse assume two auxiliary claims: "interlanguage must be analyzed on its own terms," and "convergence on the target language grammar is not guaranteed" (Schwartz & Sprouse, 1996, p. 42).

Related to the FT/FA model, Sprouse (2006) observes that L2 learners' task is to relabel the lexical items of their native language in the target language. In other words, this is the restructuring process of the morphological, syntactic, and semantic properties of the relevant lexical item in the L2 based on available L1 lexical items.

The FT/FA model influences many studies, but for the sake of the current paper, successful and unsuccessful cases of the L2 acquisition processes of scopally ambiguous interpretations will be reviewed. We will point out such ambiguous interpretations from the superset-subset relation. In addition, L2 learners whose native language allows both superset and subset interpretations have less difficulty learning an L2 that allows only the subset reading.

Grüter, Lieberman, and Gualmini (2010) reported that English-speaking learners of Japanese successfully acquired the interpretation between a negation and a disjunction, but that this was not the case for Japanese-speaking learners of English. Consider the following:

(10)	[Doubutsu-wa]	keeki-wo	tabeta-ga,	ninjin-ka	piiman-wo	tabenakatta.
	Animal-Top	cake-ACC	eat-Past but,	carrot-Or	pepper-ACC	eat-Neg-Past

(11) The [animal] ate the cake, but he didn't eat the carrot or the pepper.

(Grüter et al., 2010, p. 140)

These examples include a negation and a disjunction in both languages. However, the relevant interpretations are not the same. While the interaction between disjunction and negation in (11) is *not* taking scope over *or* (i.e., the animal ate neither the carrot nor the pepper = surface scope), the opposite is true for the Japanese counterpart in (10) (*or* > *not*; the animal didn't eat the carrot or didn't eat the pepper = inverse scope). Notice that the surface scope reading entails the inverse scope reading (i.e., if it is true that the animal ate neither the carrot nor the pepper, it is also true that the animal didn't eat the carrot or didn't eat the pepper, but not vice versa). This is known as privative ambiguity (Gualmini & Schwarz, 2009). Since L1 transfer takes place for both groups, it is important to know how native speakers of English and Japanese acquire the interaction between negation and disjunction. According to Grüter et al., while English-speaking adults and children accept the same truth conditions for (11), Japanese-speaking adults and children have different interpretations. Namely, Japanese-speaking children's interpretation of (10) is the same as that of English-speaking adults and children. So, the acquisition process of the Japanese-speaking children is to begin with the English-type interpretation, and with positive evidence of Japanese, they unlearn the English-type of interpretation (surface scope) and arrive at the Japanese-type of interpretation (inverse scope). Such a learning process is led by the semantic subset principle (Crain, Ni, & Conway, 1994) in which the Language Acquisition Device ensures that

the surface reading is always learned first (note that the surface reading entails the inverse reading, but not the other way around).

Grüter et al. reported that English-speaking learners of Japanese were more successful than Japanese-speaking learners of English in acquiring the relevant interpretations between negation and disjunction. Grüter et al. confirmed that there was evidence of L1 transfer at the initial stage of L2 with respect to the acquisition of the interpretation of negation and disjunction since the L1 interpretation was carried over to the L2, especially Japanese-speaking learners of English. English-speaking learners of Japanese seemed to adjust their English interpretation (surface scope) to the Japanese counterpart (inverse scope), as the semantic subset principle predicts.

Given that the age at first exposure to the target language is 18 years for English-speaking learners of Japanese and 12 years for Japanese-speaking learners of English, they are not at the initial state of learning the target language. However, Grüter et al. consider that the default interpretation of negation and disjunction in L1 persists until at least age 5: "Thus, one might expect similarly protracted development in L2 acquisition, and in consequence, a reflection of the initial default at least in beginner and intermediate L2 learners" (Grüter et al., 2010, p. 144). According to this study, only four out of 32 Japanese-speaking learners of English acquired the English readings, whereas 12 out of 20 English-speaking learners of Japanese successfully acquired the Japanese interpretation. In other words, as the semantic subset principle predicts, learners whose L1 allows the surface reading have an advantage over those whose L1 allows the inverse reading.

Another interesting study is Marsden (2009). She investigated the acquisition processes of Japanese interpretations of quantifier interactions by English-speaking learners of Japanese (and Korean-speaking learners of Japanese).

(12) Someone read every book. (some > every, every > some)

(13) Dareka-ga dono-hon-mo yonda.
someone-NOM every-book-mo read
'Someone read every book.' (some > every, #every > some)

While (12) is scopally ambiguous between *some* and *every*, its Japanese counterpart (13) is not, since Japanese is a scope-rigid language (i.e., the surface interpretation is the only interpretation; Hoji, 1985).[2] Hence, if we assume that English forms a superset (both surface and inverse scope readings), Japanese allows a subset (inverse scope).

[2] Note that the native Japanese control group (*N* = 21) confirms the theoretical claims (i.e., scope rigidity). Native Japanese speakers robustly accept the surface scope interpretation (87.5%) as opposed to the inverse scope interpretation (16%) in a sentence such as (13). See Marsden (2009, p. 146) for the results.

However, when scrambling occurs, the sentence becomes ambiguous:

(14) Dono-hon-mo*i* dareka-ga t*i* yonda.
every-book-mo someone-NOM read
Some > every, every > some

In this sentence, the object phrase that contains a universal quantifier moves to the sentence-initial position. As a result, the surface interpretation (i.e., every > some) and the reconstructed interpretation (some > every) become available. Therefore, there are two things that English-speaking learners of Japanese have to learn/overcome. First, in the ordinary Japanese word order (SOV), they have to learn that an object wide scope reading (i.e., every > some at LF) is not available, which is possible in the English counterpart. Second, they have to learn a phrasal movement (i.e., scrambling) that is not available in English. In addition, in the scrambled structure, the object phrase that contains the universal quantifier can be reconstructed at the original position; hence, the sentence is ambiguous. Nevertheless, English-Japanese interlanguage grammar allows the learners of Japanese to have access to both the every > some and the some > every interpretations. Marsden tested whether or not the intermediate learners of Japanese would differ from the advanced learners of Japanese in terms of which interpretations they are able to access.[3]

Marsden found that while the intermediate learners of Japanese seemed to have English-type interpretations due to L1 transfer, the advanced learners had access to the same interpretations as the native Japanese speakers. Thus, she claims that "[...] only for learners whose L2 grammar has undergone restructuring beyond the initial state with respect to quantifier scope interpretation. Such restructuring could not be instantaneous: some data must be processed in order to motivate restructuring. This leads to the prediction that target-like knowledge may be absent in lower proficiency learners but present in higher proficiency learners" (Marsden, 2009, p. 141). Successful learners were able to relabel L1 lexical features relating to the universal quantifier to their L2 counterparts (Sprouse, 2006). Marsden explains the relabeling processes based on the characteristics of Japanese universal quantifiers (i.e., dono N mo).

(15) Dono-gakusei (-tati)-mo siken ni ukatta.
Every student(-Pl) exam in succeeded
'Every student(s) passed the exam.'

(Marsden, 2009, p. 157)

[3] Marsden assigned the learners' groups based on the scores of a 42-blank random cloze test whose content was not available in the paper.

The lexical feature of *every* in English is a [+singular] feature. However, as (15) shows, the Japanese universal quantifier appears as either singular or plural. Marsden explains that English-speaking learners of Japanese encounter and process enough examples like (15) and that such an example could motivate deletion of the [+singular] feature that is not compatible with the plural variant (Marsden, 2009, p. 158). Eventually, the learners' interlanguage grammar becomes that of native Japanese speakers.

Learners are not explicitly taught that target sentences like (14) are ambiguous—rather, Marsden claims that the relevant interpretations in the target language are guided by the constraints in UG. That is, even L2 learners are still able to access the options provided by UG. This makes it possible for the advanced learners of Japanese in her study to acquire native-like interpretations. Hence, learners of Japanese transfer the L1 knowledge at the initial state of learning Japanese, but they gradually adjust interlanguage grammar, guided by UG options (Full Access).

It is not always the case that L2 learners can successfully acquire a target grammar. Kimura's (2019) study is the case in point. This study is in the opposite direction of Marsden (2009): Japanese-speaking learners of English acquire scope interactions. His main purpose is to examine whether or not Japanese-speaking learners of English could acquire QR based on the Interpretability Hypothesis (IH: Hawkins & Hattori, 2006; Tsimpli, 2003; Tsimpli & Dimitrakopolou, 2007 among others):

(16) "a. *Uninterpretable features* (*u*Fs) that are not selected by L1 are subject to the critical period effect.
b. The absence of *u*Fs is compensated for by the interpretable (iF) counterpart."

(Kimura, 2019, p. 1 on the manuscript; also see references in Kimura)

Kimura assumes a trigger for QR as "it is an uninterpretable feature, which I refer to uQUANT, that triggers QR. Just like the EPP feature, the uQUANT feature occurs in a functional head (DistP) (Beghelli & Stowell, 1997) and attracts a QP" (Kimura, 2019, p. 2 on the manuscript).

Kimura conducted an acceptability judgment test to see whether or not Japanese-speaking learners of English can access both surface and inverse scope interpretations in English such as 'A student read every book.'

Kimura acknowledges that the English interpretations form a superset (i.e., surface and inverse scope) and the Japanese interpretations form a subset (surface scope) (Kimura, 2019 on the manuscript, p. 4). He controlled the surface and inverse scope readings by the relevant contexts. He had 15 learners of English and seven native speaker control participants. These learners of English began to study English between ages 10 and 13, and their ages ranged

from 21 to 26 (M = 23.3) (Kimura, 2019, on the manuscript, p. 4). While native speakers in the control group accepted both the surface and inverse scope readings (t(6) = 1.701, two-tailed p = 0.14) (Kimura, 2019, on the manuscript, p. 5), Japanese native speakers overwhelmingly accepted the surface scope interpretation more than the inverse scope interpretation (t(14) = 5.330, two-tailed p < .001) (Kimura, 2019 on the manuscript, p. 6). Kimura notes that even advanced and intermediate-advanced learners totally rejected the inverse scope reading.[4] Hence, although English-speaking learners of Japanese had success acquiring Japanese scope interpretations, as in Marsden (2009), Japanese-speaking learners of English did not.

Furthermore, Kimura (2022) investigated how learners of English whose native language is Japanese would acquire the knowledge of the English universal quantifier. In particular, he examined the relevant features of *all* (collective/quasi-distributive features) and *every* (distributive feature) in terms of feature checking movement and L2 learner's acquisition of the distributive feature in English *every*. By conducting the picture-based acceptability judgment task for Japanese-speaking learners of English, he found that native Japanese speakers could not acquire the 'distributive' feature in *every*. Rather, they consider the feature of English *every* as 'collective/quasi-distributive.' Kimura pointed out that this was the problem why Japanese-speaking learners of English could not access inverse scope reading in the following sentence such as 'A boy loves every girl (a > every & every > a).'

Kimura's (2022) study reminds us of Marsden's study in which English-speaking learners of Japanese may encounter an example such as (15), which motivates them to change from the English type feature [+singular] of universal quantifier to the Japanese counterpart. However, although English universal quantifier *every* requires a singular noun, Japanese-speaking learners of English could not acquire the distributive feature in their interlanguage grammar.

We reviewed a few studies regarding L2 acquisition of scope interpretation. Generally speaking, English-speaking learners of Japanese are more successful in learning the interpretations of the scopal interactions than Japanese-speaking learners of English are. English has more interpretations, such as surface and inverse scope interpretations (or superset and subset interpretations) than Japanese does. And as we reviewed, Marsden's participants might have had enough evidence (such as a quasi-plural morpheme 'tati') to restructure the relevant feature, while that was not the case with Kimura's (2022) participants. So, it may be the case that learners whose interpretation is superset happen to see clear morphological evidence of the target language whose interpretation is subset. In the next Section, we will observe the English ambiguous sentences in which passivization occurs followed by QR, which is our target structure.

[4] Kimura notes that participants took the Oxford Quick Placement test.

Quantifier Raising, Passive in Nominalization and Interpretations

In this Section, we will review van Hout, Kamiya, and Roeper (2013) that show asymmetrical scope interpretations based on the appearance of the quantifier. In addition, it is the negative quantifier whose equivalent does not exist in Japanese. van Hout et al. observe the following pair of sentences and their respective interpretations.

(8) The election of nobody surprised me.
a. Nobody at all was elected, and that was surprising.
b. Of those elected, none of them surprised me.

(9) Nobody's election surprised me.
a. #Nobody at all was elected, and that was surprising.
b. Of those elected, none of them surprised me.

(van Hout et al., 2013, p. 138)

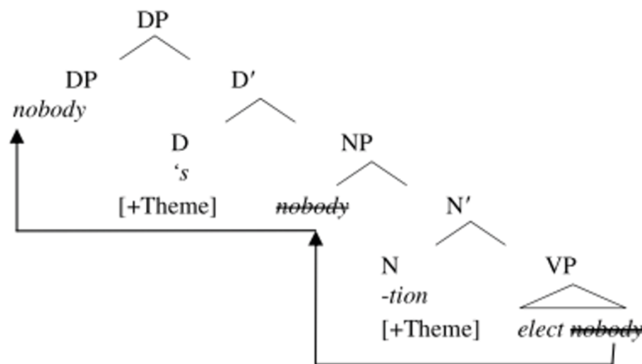
This is '-tion' nominalization. As far as the form goes, (8a) is an active nominal with which the Theme argument *nobody* in a post-nominal of-phrase (van Hout et al., 2013, p. 138). In addition, (8) is ambiguous. (8a) is the narrow-scope reading in which *nobody* takes scope in its post-nominal position. (8b) is the wide-scope reading in which *nobody* takes scope over *election*. On the other hand, (9) is called passive nominals where *nobody* moves from the post-nominal position to the sentence initial position (van Hout et al., 2013, p. 143). Unlike (8), example (9) is unambiguous: only the wide-scope reading is available (van Hout et al., 2013, p. 138). With such readings, they raised a question: "why are active '-tion' nominalizations with the quantified phrase in the post-nominal position ambiguous, whereas passive nominalizations with the quantifier prenominally exhibit scope freezing?" (van Hout et al., 2013, p. 138). van Hout et al. compare and contrast the structures of sentential passive vs. passive in nominalization. In the sentential passive, the motivation of movement for the theme argument is to obtain Case:

(17) ______ was arrested he → he was arrested he

However, van Hout et al. point out that the same motivation is not applied to passive in nominalization since "Case is provided by a dummy preposition in the post-nominal of-PPs" (van Hout et al., 2013, p. 139). They assume that there is a parallelism between sentence and noun, so they consider that the movement by Case is not the ultimate motivation. Rather, they propose that

"passivization essentially reserves the subject position for the Theme argument" (van Hout et al., 2013, p. 139). That is, "the Theme moves to satisfy a passive feature which attracts it to subject position" (van Hout et al., 2013, p. 142). This applies to (9). Then, why is it that passivization in the nominalization is unambiguous with respect to the negative quantifier? van Hout et al. propose the following derivation of passivization and the internal structure in nominalization.

(18)



(van Hout et al., 2013, p. 152)

van Hout et al. assume that there is VP within nominalization. In this derivation, *nobody* is generated as the object position in VP. And it moves to Spec-NP and further to Spec-DP. They claim that Spec-NP is A-position and Spec-DP is A'-position. The motivation of movement to Spec-NP is to satisfy the passive feature (or Extended Projection Principle = EPP van Hout et al., 2013, p. 139) and the motivation to Spec-DP is QR. Following Lasnik's (2003) generalization that reconstruction is not allowed after movement via an A-position to an A'–position, van Hout et al. explain that this movement path is the reason why *nobody* is unambiguous.

On the other hand, when *nobody* appears at the post-nominal position, it is interpreted at the in-situ position (= the narrow scope reading). Since the passive feature does not show up in this form, *nobody* directly moves to Spec-DP for QR (= the wide scope reading). Hence, anti-reconstruction does not occur in this movement. Therefore, it is ambiguous (van Hout et al., 2013, p. 139). In sum, there is an overt movement in English nominalization. The motivation of the movement is to satisfy the passive feature (or EPP). Does overt movement occur in Japanese?

Kishimoto (2006) extensively argues that there is no A-movement motivated by the EPP in Japanese noun phrases. The nominalizing morpheme *-kata* 'way

of' does not have an EPP feature (Kishimoto, 2006, p. 772), and lexical items must stay at the merge positions (no movement is allowed, as in b):

(19) a. John-no hon-no yomi-kata
John-GEN book-GEN read-way
'the way of John's reading books'
b. *hon-no John-no yomi-kata
book-GEN John-GEN read-way
'the way of John's reading books'

(Kishimoto, 2006, p. 789)

Therefore, in order to acquire the relevant interpretations in (8) and (9), Japanese-speaking learners of English must learn the property of the English negative quantifier and a movement motivated to satisfy the passive features.

Predictions

Now, how is the interpretation of the English negative quantifiers introduced to learners of English? We examined a popular reference book of English used in Japanese high schools. According to the book, a negative quantifier such as *no* is something that negates the noun that follows it:

(20) No money was left in my purse (Takahashi & Negishi, 2012, p. 310).

It explains that a negative quantifier negates a noun on the surface, but semantically speaking, it negates an entire sentence. It also explains that *no* can negate only nouns, not an entire sentence such as *No news is good news* (Takahashi & Negishi, 2012, p. 310). Furthermore, the reference book introduces *nothing*, *nobody*, and *none* as single lexical items, giving the Japanese equivalents *daremo ~nai*, meaning that they negate an entire sentence, as in *Nobody (no one) has come* (Takahashi & Negishi, 2012, p. 311). Therefore, there is no explicit instruction about the ambiguous interpretations of the English negative quantifiers in this textbook as in example (8).

In addition, the typological distance between languages would determine the direction and intensity of cross-language interaction. According to Haspelmath (1997), a negative quantifier such as *no x* is one of the rare types in world language (Haspelmath, 1997, p. 202). It never co-occurs with verbal negation: English no-series (Haspelmath, 1997, p. 201).

(21) a. Nobody came.
b. I saw nobody.

Haspelmath reports, "In my sample, the Latin type (V-NI) (which is English type)[5] is only represented by European languages, suggesting that it is an areal phenomenon.... Within Europe, the 10 languages of this type are Icelandic, Norwegian, Swedish, Danish, English, Frisian, German, French, Occitan, and Maltese (Bernini and Ramat, 1992: 205)" (Haspelmath, 1997, p. 202). So, the target lexical item (i.e., English negative quantifiers) is rare. In this situation, there is a possibility that learners may be able to acquire a new lexical item due to the absence of the relevant lexical or grammatical items in their native language (a kind of novelty effect) (Kleinmann, 1977, p. 104). Or because there is no closeness to the target lexical item, it may be hard for Japanese-speaking learners of English to acquire it (i.e., ambiguity).

But based on the previous studies such as Kimura, it may be difficult for Japanese-speaking learners of English to acquire QR of the English negative quantifier, given that there is no QR in Japanese. In addition, assuming that L1 grammar is carried over to the L2 initial state, it is possible that the Japanese-speaking learners of English will not show the characteristics of A-movement motivated by the passive feature (or EPP) (A-movement does not reconstruct), based on Kishimoto (2006). As a result, in terms of Full Transfer/Full Access, we can predict the following scenarios:

Full Transfer:

Because there is no English negative quantifier equivalent in Japanese, FT will not occur by theory. However, recall "all principles and parameters valued in the learner's L1 are carried over as the initial state of the L2" (Schwartz & Sprouse, 1996). In terms of grammar, there is no QR (or scope rigidity) in Japanese. So, let us suppose that the English negative quantifier comes with a feature such as [QR] for the sake of the present paper. The question is if the [QR] feature is transferred as [+QR] or [-QR]. Since Japanese is a scope rigid language, it is plausible to assume that [-QR] is transferred to new quantifiers (i.e., English negative quantifier). This assumption is compatible with Kimura's studies as well.

Because there is no A-movement in Japanese (Kishimoto, 2006), it is assumed that A-movement will not occur in learners' grammar. Therefore, although *nobody* as in *nobody's election* may be interpreted as the Theme argument, it may not be the result of A-movement.

[5] The parentheses are added by the author.

Full Access:

As we mentioned above, if QR is a feature, Japanese-speaking learners of English begin with a narrow scope and they will be able to obtain a wide scope reading guided by UG.

So, let us suppose the following learning scenarios for Japanese-speaking learners of English:

a) If they robustly interpret the English negative quantifier as narrow scope wherever it appears, that may imply that the default value for the negative quantifier is [-QR]. So, the learning path will restructure the value of QR, followed by A-movement constraint.
b) Unlike the Full Transfer hypothesis, if they interpret the English negative quantifier as both wide and narrow readings in *the election of nobody*, that may imply that their initial feature values are both wide and narrow (and QR is a part of the lexical item). Thus, the learning path is to acquire that A-movement constraint in *nobody's election*.

If scenario (a) holds, then, learners must see positive evidence to restructure the initial value. If scenario (b) holds, then, learners must see positive evidence to acquire the constraint of A-movement. We are motivated to assume these possibilities of the interpretation of the negative quantifier based on Goro (2015) and Zhou and Crain (2009). Both studies investigated the scope interactions between *some* and *every* (Goro, 2015) and between *every* and negation (Zhou & Crain, 2009) in native English children/adults and learners of English whose native language is Japanese (Goro, 2015) and Chinese (Zhou & Crain, 2009). Native English-speaking children/adults have access to both surface and inverse scope interpretations of sentences such as (6) and (12). Surprisingly, native Japanese children and native Chinese children also had access to both surface and inverse scope interpretations, unlike their adult counterparts. But as they grow older, learners will adjust the relevant interpretation. This is the reason to assume (a) and (b) scenarios.

Recall that a successful learning path is guided by the constraints provided by UG (Marsen, 2009). But as Grüter et al.'s (2010) and Kimura's (2019, 2022) works show, Japanese-speaking learners of English are not as successful as English-speaking learners of Japanese in quantification interpretations, given that robust positive evidence is not available. Most importantly, the superset-subset interpretations such as universal quantifiers between English and Japanese do not hold since there is no Japanese equivalent of the English negative quantifier. In this way, the robust reading by Japanese-speaking learners of English may reveal a default meaning of the English negative quantifier.

Participants and Procedures

Participants

We had 23 native English speakers as a control group (monolingual native English speakers). In addition, we had 54 learners of English whose native language is Japanese. The average years of study among the participants is 9.96 years, ranging from one year to 26 years. Out of the 54 participants, the majority began to study English in the 7th grade, around 13 years old (see their number of years studying English and TOEIC score in Appendix 1). These participants were recruited with the help of our colleagues at a Japanese university as well as personal contacts by one of the authors. The participants were paid $10 (1000 yen) upon completion of the survey.

Procedures

We conducted the experiment using an online survey format (Qualtrics), and all the responses were automatically recorded. First, the participants read a brief discourse context. Then, participants were given a sentence and were asked if it was an accurate description of the discourse context. Here are four examples to illustrate the above procedure:

<u>Example 1: Negative quantifier post-nominal wide scope reading</u>

Last month, the school PTO board held an election for new members. All three of the candidates, Mr. Howard, Ms. Kelly, and Ms. Stern, were incredibly popular. They had helped out at a lot of activities before, so everyone knew and liked them. As was expected, all of them were elected to be board members.

Q: Is the following sentence an accurate description of the above situation?

The election of no candidate was a surprise.

Yes/No

<u>Example 2: Negative quantifier post-nominal narrow scope reading</u>

The school PTO board had to elect three new members last month, but all of the candidates were so unpopular that no one was elected. So, they held another election this month, and Mr. Brown, Ms. Smith, and Ms. Walker ran for the positions. Everyone assumed they would win, but they were not elected. Now the PTO will have to hold yet another election next month.

Q: Is the following sentence an accurate description of the above situation?

The election of no candidate was a surprise.

Yes/No

Example 3: Negative quantifier pre-nominal wide scope reading

Last month, the school PTO board held an election for new members. All three of the candidates, Mr. Dixon, Ms. Lee, and Ms. Grant, were incredibly popular. They had helped out at a lot of activities before, so everyone knew and liked them. As was expected, all of them were elected to be board members.

Q: Is the following sentence an accurate description of the above situation?

No candidate's election was a surprise.

Yes/No

Example 4: Negative quantifier pre-nominal narrow scope reading (impossible interpretation by native English speakers)

The school PTO board had to elect three new members last month, but all of the candidates were so unpopular that no one was elected. So, they held another election this month, and Mr. Ellis, Ms. Schneider, and Ms. Walter ran for the positions. Everyone assumed they would win, but they were not elected. Now the PTO will have to hold yet another election next month.

Q: Is the following sentence an accurate description of the above situation?

No candidate's election was a surprise.

Yes/No

Note that example 4 is an impossible interpretation by van Hout, Kamiya, and Roeper's theory.

In addition to the above main test, we had a warmup test and a structure checking test. The purpose of the warmup test was to have participants become familiar with the test format, and the purpose of the structure checking test was to see whether learners of English would be able to understand the meaning of nominalization. In particular, van Hout et al. claim that the subject position in passivization (i.e., *nobody* at pre-nominal position) is reserved for the Theme argument. We were also motivated to include this test based on a pilot test in which some of the non-native speakers of English asked the meaning of nominalization, such as *the destruction of the city* vs. *the city's destruction*. Therefore, this test is only for learners of English.

Examples of the structural checking test are as follows:

Example:

Which sentence between (1) and (2) has the same meaning as the underlined part of the following sentence?

A) The army's destruction of the city was terrible. (active interpretation)

(1) The army destroyed the city.

(2) The city destroyed the army.

B) The city's destruction by the army was terrible. (passive interpretation)

(1) The army was destroyed by the city.

(2) The city was destroyed by the army.

Note that the contexts are written in Japanese for the learners of English to make sure they understand the contexts appropriately. Such a method was utilized by Dekydtspotter, Edmonds, Fultz, and Renaud (2010). The participants were free to go back to the previously answered questions and correct the answers if they wanted. There was no time limit. There were 12 test questions and 24 filler questions. We randomized the order of the presentations and prepared two versions of the test.

Finally, we want to mention the nature of the examples and benefits for L2 learners. Examples under the investigation were rare in corpora. Similarly, examples in Marsden or Kimura whose works were introduced in an earlier section may be rare. In addition, examples under investigation are ambiguous. Hence, it is plausible to ask if the ability to acquire ambiguous interpretations is useful to the L2 learner. We considered this matter and refer to Piantadosi, Tily, and Gibson (2012). They argued for two beneficial properties of ambiguity: (a) "where context is informative about meaning, unambiguous language is partly redundant with the context and therefore inefficient"; (b) "ambiguity allows the re-use of words and sounds which are more easily produced or understood" (Piantadosi et al., 2012, p. 3). They mainly investigated lexical ambiguities such as *run* could be "a run in a pantyhose, a run in baseball, a jog, to run, a stretch of consecutive events" (Piantadosi et al., 2012, p. 6). But ambiguity is ubiquitous, and these authors claim that ambiguity is not harmful to actual communication since interlocutors are able to effectively disambiguate between possible meanings (Piantadosi et al., 2012, p. 4). These authors also reported that structural ambiguities that slow down human comprehension are extremely rare. But they reported that language users avoided conceptual ambiguities in communication (Piantadosi et al., 2012, p. 17). We are aware that the study done by Piantadosi et al. is not about scope ambiguity and L2 acquisition. We understand authenticity is important for language teaching/learning. However, the benefits for learners of foreign/second language seem to hold, given that language is a tool for communication. Namely, instead of clarifying the relevant interpretation with more words as can be seen in (a) and (b) readings in example (6), speakers could make a shorter sentence (i.e., more economical to communicate). Even as an interlocutor, had they known the scopal ambiguity, they will be able to understand the intended ambiguous interpretation without being confused. So, it is meaningful to learn the scopal ambiguity as well as other ambiguities,[6] although teaching such a topic may not be a top priority.

[6] Marsden (2018) reported the usefulness of the research found in generative approach to SLA in the classroom where language teachers teach grammar.

Analysis

In the statistical analyses, three mixed effects logistic regressions were conducted, and they explored relationships between native English speakers, learners of English, scope of negative quantifiers, and the interpretation results. Mixed effects analyses are appropriate because we had the 4-level predictor (scope) with the categorical values for each unit of observation, while also considering the random effects of different topics and participants. We made use of the glmer model, which is a generalized linear mixed-effects model (in R as "lme4" package), using a dummy coding scheme. Here, in all three models, the 4-level predictor (scope) is represented with three codes (plus the intercept term), where the intercept represents the predicted value for a baseline category. Baseline category here is the level (post-nom-narrow), and the three codes of the other levels' labels (post-nom-wide, pre-nom-wide, and pre-nom-narrow) represent the deviations of the other groups from the baseline category. In the model where we investigate whether being L1 or L2 affects the interpretation results, a 2-level categorical predictor is added (L1, L2) and L1 is the baseline. In the model that focuses on L2 learners, their TOEIC scores are included as an additional continuous predictor to explore whether the English skills affect the interpretation results while controlling for scope. The TOEIC scores were mean-centered, so the models could better interpret effects while controlling for the variability in the covariate. All models included the same categorical random effects; they were included to account for the fact that the model assumes that the baseline level of the response (i.e., the intercept, post-nom-narrow) may differ across different levels of topics of the sentences as well as the participants, therefore random intercepts were included. There is no theoretical foundation to assume that the scope of the sentence's effects would be different for sentence topics or the participants, as the relevant interpretation remains, therefore random slopes were not included. In addition, because every participant has entries of speaking all three types of sentences (topics) for all four different testing scopes, these factors become fully crossed and hence can be considered not nested in the model.

Results

The following tables display the mean and standard deviations for the structural checking test for learners of English.

Table 1

Structural Checking Test Results

	Mean	Standard Deviation
Active interpretation (e.g., the army's destruction of the city) (*N* = 54)	83.6%	.86310
Passive interpretation (e.g., the city's destruction by the army) (*N* = 54)	75.0%	.80529

For the active interpretation, learners of English scored 83.6%, while they scored 75.0% for the passive interpretation. So, the learners' group correctly interpreted the target structures.

Next, Figures 1 and 2 display the percentages of correct and incorrect interpretations of negative quantifiers. Note that post_nom_narrow represents post-nominal narrow scope reading, post_nom_wide represents post-nominal wide scope reading, pre_nom_narrow represents pre-nominal narrow scope reading, and pre_nom_wide represents pre-nominal wide scope reading.

Figure 1

Native English Speakers' Interpretations

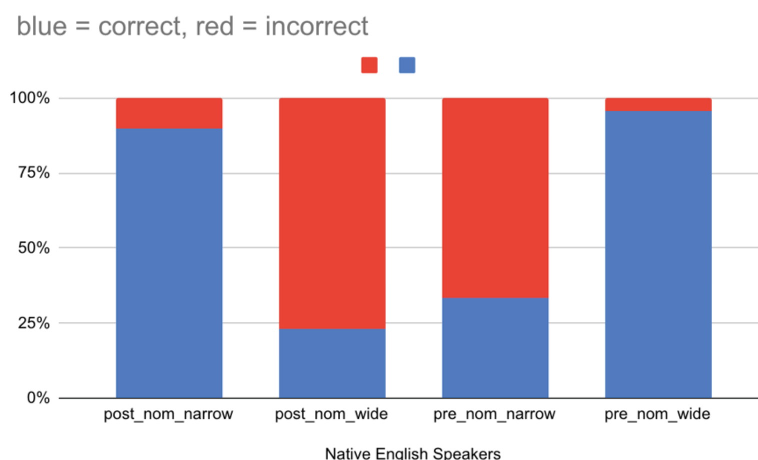
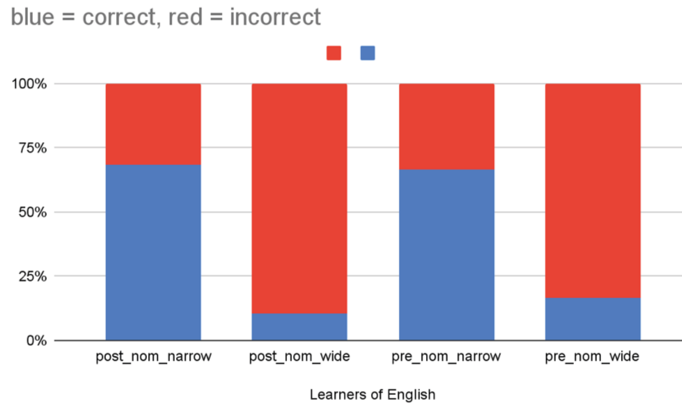


Figure 2

English Learners' Interpretations



Native English speakers accepted 89.9% in the post-nominal narrow scope reading, 23.2% in the post-nominal wide scope reading, 33.3% in the pre-nominal narrow scope reading, and 95.7% in the pre-nominal wide scope reading. Note that the post-nominal wide scope reading is accepted a lot lower than the post-nominal narrow scope reading. Wu and Ionin (2021) reported that native English speakers dispreferred an inverse scope reading in examples such as 'All the pirates didn't leave the ship' (not > all) or 'one dog got every bone (every > one).' So, the current result may not be unusual.

Learners of English, on the other hand, accepted 68.5% in the post-nominal narrow scope reading, 10.3% in the post-nominal wide scope reading, 66.7% in the pre-nominal narrow scope reading, and 16.4% in the pre-nominal wide scope reading. Note that pre-nominal narrow scope reading is supposed to be impossible in van Hout et al. (2013) and that the acceptance rate of both narrow scope readings (i.e., pre-nominal narrow and post-nominal narrow) are almost the same.

For native English speakers, the fixed effect was scope type (pre-nominal wide scope, pre-nominal narrow scope, post-nominal wide scope, and post-nominal narrow scope, = 4 levels). The random effects were participants (= 23) and topics (student, teacher, candidate = 3 levels, which are relevant words appearing in test sentences). The dependent variable is interpretations (0 = correct and 1 = incorrect: 2 levels). Note 0 represents that the subject did not make a mistake when interpreting the sentence, while 1 represents that there was a mistake. Compared to the baseline level of Scope (post-nominal narrow as intercept, $p < 0.0001$), two out of the three levels showed significance in effecting the correct interpretation while considering the random effects of Topic and Participant. Marginal log-odds for a post-nominal wide scope ($p < 0.0001$)

results in a false interpretation of 3.6209, corresponding to a marginal probability of 97.4%. Similarly, marginal log-odds for a pre-nominal narrow scope ($p < 0.0001$) results in a false interpretation of 3.6209, corresponding to a marginal probability of 95.6%. Further Anova Test (using 'Type III' to include the interactions between fixed and random effects) also shows that Scope, as the fixed effect, is significant for influencing the output of Interpretation.

For learners of English, the fixed effect was scope type (pre-nominal wide scope, pre-nominal narrow scope, post-nominal wide scope, and post-nominal narrow scope = 4 levels). The random effects were participants (= 54) and topics (student, teacher, candidate = 3 levels, which are relevant words appearing in test sentences), and TOEIC scores (continuous variable, mean-centered at mean = 624.5). The dependent variable is interpretations (0 = correct and 1 = incorrect: 2 levels). The TOEIC score as an independent variable did not show statistical significance in changing the outcome (interpretation) for English learners ($p = 0.62189$). With the post-nominal narrow scope as the intercept ($p = 0.00682$), significant differences were found in pre-nominal wide scope ($p < 0.0001$) and post-nominal wide scope ($p < 0.0001$), marginal probability for these two levels producing a false interpretation of 97.3% and 95.2% But there is no statistical significance for pre-nominal narrow scope ($p = 0.59410$). The partial output is below (and the entire output is displayed in Appendix 2).

Figure 3

Native English Speakers

```
Fixed effects:
                    Estimate Std. Error z value Pr(>|z|)
(Intercept)          -2.3251     0.4415  -5.266 1.39e-07 ***
Scopepost_nom_wide    3.6209     0.5391   6.716 1.86e-11 ***
Scopepre_nom_narrow   3.0789     0.5130   6.001 1.96e-09 ***
Scopepre_nom_wide    -0.9288     0.7208  -1.289    0.198
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Figure 4

Learners of English

```
Fixed effects:
                      Estimate Std. Error z value Pr(>|z|)
(Intercept)         -0.9818818  0.3629501  -2.705  0.00682 **
Scopepost_nom_wide   3.6017534  0.3665600   9.826  < 2e-16 ***
Scopepre_nom_narrow  0.1421737  0.2667893   0.533  0.59410
Scopepre_nom_wide    2.9880797  0.3262446   9.159  < 2e-16 ***
TOEIC_centered       0.0005967  0.0012099   0.493  0.62189
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

After exploring the variables in the data, and concluding that L1 and L2 speakers have different interactions with the scope of the sentence and subsequent interpretation correction rate, we constructed the last model to directly compare and examine effects the of L1 and L2, their interactions to the scope, and how that would affect the interpretation. Since TOEIC score has proven to not be a useful variable, it is excluded during the selection process. Summary statistics shows that controlling for the effects of the scope of each sentence and considering the random effects, L1 vs. L2 is a significant factor ($p = 0.00236$) in getting the right interpretation, where being an English learner increases the log odds of getting the wrong interpretation by 1.5819. Detailed interaction terms between L1/L2 and sentence scopes further confirms the effect: when looking at the interaction term between L1/L2 and pre-nominal narrow scope, the odds of getting this type of sentences wrong for L2 speakers are approximately 0.038 times (transformed log-odds of –3.2647) of the odds of L1 speakers; on the other hand, the interaction term between L1/L2 and pre-nominal wide scope indicates that when looking at a sentence with this scope, the odds of L2 speakers getting the wrong interpretation is 47.6 times the odds for the L1 (transformed log-odds of 3.8636) speakers. Both of the aforementioned interactions are significant ($p < 0.0001$), whereas the effect of post-nominal wide scope interacting with L1/L2 did not yield significant insights.

The partial output is below (and the entire output is displayed in Appendix 2).

Figure 5

Native vs. Learners of English Comparison

```
Fixed effects:
                             Estimate Std. Error z value Pr(>|z|)
(Intercept)                   -2.5314     0.5240  -4.831 1.36e-06 ***
L1_L2L2                        1.5819     0.5201   3.041  0.00236 **
Scopepost_nom_wide             3.9610     0.5421   7.307 2.73e-13 ***
Scopepre_nom_narrow            3.3645     0.5191   6.481 9.10e-11 ***
Scopepre_nom_wide             -0.9483     0.7286  -1.302  0.19307
L1_L2L2:Scopepost_nom_wide    -0.4477     0.6269  -0.714  0.47514
L1_L2L2:Scopepre_nom_narrow   -3.2647     0.5800  -5.629 1.82e-08 ***
L1_L2L2:Scopepre_nom_wide      3.8636     0.7942   4.865 1.14e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

The present study shows notable contrastive results between native English speakers and learners of English. First of all, native English speakers robustly access the wide scope reading when the negative quantifier is at the pre-nominal position. On the other hand, this trend was not observed in learners of English. Second, related to the pre-nominal position, learners of English tended to in-

terpret the negative quantifier as the narrow scope reading, and van Hout et al. report that this interpretation is not possible. Overall, learners of English tended to interpret the negative quantifier as the narrow scope reading wherever it appeared. As the previous studies show, Japanese is a scope-rigid language (hence, no QR). It seems that learners of English have not acquired QR in the target sentences.

All in all, the current study shows the similar trend as the previous studies such as Kimura (2019; 2022) and Wu and Ionin (2021). Namely, it is difficult to acquire QR if one's native language is a scope-rigid language.

However, we would like to commit ourselves to the comparative fallacy (Bley-Vroman, 1983; White, 2003). In particular, we want to focus on those whose TOEIC scores are above 900.

Table 2

TOEIC Scores and Leaners' Interpretations

TOEIC Scores	Pre-nominal wide scope	Post-nominal wide scope
900	0/3	0/3
905	3/3	3/3
915	1/3	0/3
920	1/3	0/3
920	0/3	0/3

One participant whose TOEIC score is 905 accurately interpreted the target sentences. Namely, this participant was able to QR the negative quantifier. More precisely, this participant was able to move the negative quantifier from the post-nominal position to the pre-nominal position by A-movement (passive movement). Since A-movement does not reconstruct, the only available interpretation is (9b) type. We checked the participant's history of learning English. This participant began studying English at the age of one year. It is not entirely clear how intensively this participant has been studying English based on the current survey. However, it may be the case that this participant might have acquired QR and the characteristics of A-movement. Other higher score participants show the robustness of non-QR interpretations for the target sentences. As the statistical analysis indicates, there is no correlation between higher scores of TOEIC and the achievement of QR.

Discussion

We discussed the possible outcomes in Full Transfer and Full Access for the learning patterns of Japanese-speaking learners of English for the English negative quantifier in an earlier section. We laid out two scenarios.

The first scenario is that there is no QR, hence, wherever the English negative quantifier appears, it is robustly narrow scope. The result shows that was the case for the learners. In particular, there was a sharp contrast between native English speakers and the Japanese-speaking learners of English in the wide scope reading. It is true that no QR is in the learners' interlanguage grammar. And notice that those participants have been studying English for a while (see the participants section and the Appendix 1), hence, it implies that no relevant evidence or motivation was available to restructure the interlanguage grammar.

The second scenario is that both wide and narrow scope are available. But as we saw, that was not the case. One implication is that it is not clear if the Japanese-speaking learners of English move the English negative quantifier from the post-nominal position to the pre-nominal position. In the structural test, we found that the majority of the learners understand that the negative quantifier in the pre-nominal position is for Theme argument. However, since the learners have not acquired QR, it is not clear if the negative quantifier base-generated at the pre-nominal position directly or if it is derived by movement. But in terms of FT, since there is no A-movement in Japanese, it may be the case that the learners base-generate the negative quantifier at the pre-nominal position. This implies that the learners assign genitive case of *nobody's* at Spe-NP in chart (18). If genitive case was assigned at Spec-DP, the wide scope reading could have been available (hence, QR could have been acquired).

Based on the results, the initial interpretation of the English negative quantifier by Japanese-speaking learners of English is the narrow scope reading. In terms of the Full Transfer hypothesis, [-QR] feature is transferred to the English negative quantifier. Hence, to acquire the wide scope reading and the A-movement constraint, learners have to see the relevant evidence to change their interlanguage grammar (assuming that will be guided by UG). But what is the relevant evidence, given that our examples are rare in corpora? And how long should we expect that interlanguage grammar will be restructured?

Let us recall the successful L2 learners of Japanese in Grüter et al. (2010) and Marsden (2009). They began to study Japanese at the age of 18 years old (Grüter et al., 2010), and the average age of Marsden's participants was 21 years old for the intermediate learners and 22 for the advanced learners (Marsden, 2009, p. 143). Hence, they were adults when they began to study Japanese. On the other hand, the average age to begin studying English among the participants in the present study is around 13 years old, and the average years of study

among the participants is 9.96 years (ranging from one year to 26 years). So, the participants in the present study began to learn English a lot earlier and have studied it longer. Japanese-speaking learners of English in the present study could have had a better chance to restructure their interlanguage grammar. Given that the data in Marsden's study or our data are rare,[7] a source of the asymmetrical acquisition results may be from somewhere else.

Regarding relevant data to change the interlanguage grammar, let us assume van Hout et al.'s explanation for both wide and narrow scope readings. If both wide and narrow scope interpretations are default ones, then learners must unlearn the narrow scope reading when the negative quantifier appears at the pre-nominal position. Unlearning the narrow scope reading can be piggybacked by learning the A-movement constraint. van Hout et al. assume Purely EPP Eliminates Reconstruction (PEPPER) (A-movement only for EPP does not reconstruct) by Nevins and Anand (2003). van Hout et al. show the minimal pair on this:

(22) a. Nobody was elected in the morning.
b. Nobody's election surprised us.

(van Hout et al., 2013, p. 155)

In (a) example which is a passive sentence, *nobody* is moved from the object position of *elected* to Spec-TP for EPP and nominative Case. So, the motivation of the movement is not just for EPP. As a result, (a) is ambiguous: 'In the morning, nobody at all was elected'; (b) 'Of those elected, none was in the morning' (van Hout et al., 2013, p. 138). However, the motivation of *nobody* in (b) example is for EPP, so the only available meaning is 'for those elected, none surprised us.' Lasnik (2003) also demonstrates that under subject to object A-movement construction, negation cannot take scope over the universal quantifier.

[7] Data/inputs are crucial for language learning (in the present context, SLA). According to Zyzik (2009), the traditional poverty of the stimulus can be interpreted as the real problem facing many classroom L2 learners in a usage-based perspective. Namely, it is "the lack of exposure to sufficiently rich and varied input" (Zyzik, 2009, p. 56). Zyzik also cites Bley-Vroman (1989) who suggested that "one of the factors responsible for the low levels of ultimate attainment is the impoverished input" (Zyzik, 2009, p. 56). This is compatible with the results of Marsden's study. That is, intermediate learners of Japanese could not acquire the Japanese type of scope interpretations, while advanced learners of Japanese could. Advanced learners in Marsden's study could be exposed to more data in their interlanguage. However, what we have to be careful of is the type of data. Following Iwasaki (2003), Marsden reported that a scrambled sentence such as (14) was rare in the actual speech. Even if the relevant evidence is rare in actual usage, the fact that the advanced learners of Japanese were able to achieve the target interpretation makes us think that the authenticity and abundant data are not the only evidence we need. This may have to do with the traditional poverty of the stimulus argument.

(23) The mathematician made every even number out not to be the sum of two primes.

(every > not, * not > every)

On the other hand, when *every even number* does not overtly move, ambiguous readings are available:

(24) The mathematician made out every even number not to be the sum of two primes.

(every > not, not > every)

These examples serve as a piece of evidence to adjust when and where both wide and narrow or only wide scope reading occur.

In addition, the following example shows that multiple Specs in English are possible. van Hout et al. identify the outer spec (*Macy's*) as a A-bar position and the inner Spec (*men's*) as A-position:

(25) Macy's men's jeans sale

(van Hout et al., 2013, p. 153)

How could native English speakers (especially children) come to understand the landing site of *nobody* in the passivization in nominal as in (22b)? We assume that UG guides native English speakers to understand the relevant landing site. Hence, the above examples motivate native English speakers to understand the landing site as well as to eliminate the narrow scope reading. If the narrow scope is the default interpretation, then learners can add the wide scope interpretation by hearing (22a) or (24) where a speaker intends to convey the wide scope reading. These examples may or may not serve as evidence to acquire the interpretations of the English negative quantifier by Japanese-speaking learners of English. Here is why.

Let us consider how the initial grammar in a learner's mind undergoes changes. According to Goro (2015), Japanese-speaking children understand the following example as ambiguous, just as the English counterpart in the translation.

(26) Dareka-ga dono-sensei-mo hihansita.
someone-Nom every-professor-mo criticized
'Someone criticized every professor.'
(some > every: there is a particular person that criticized every professor; every > some: every professor was criticized by someone)

Hence the initial interpretation of (26) is different from that of Japanese-speaking adults. However, Japanese-speaking children eventually unlearn the inverse scope reading (i.e., every > some). Goro explains that the impossible interpretation (i.e., every > some) is a consequence of some other property of the language; hence, children do not have to depend on input evidence to determine what is impossible (Goro, 2015, p. 167). Goro claims that it is the semantic property of the *-ga* marked subject (nominative case) in (26) that invokes the scope rigidity effect since the implicature of *-ga* is the exhaustive listing (Goro, 2015, p. 169). Namely, expunging the impossible reading is a piggyback on learning the nominative case (and its meaning).

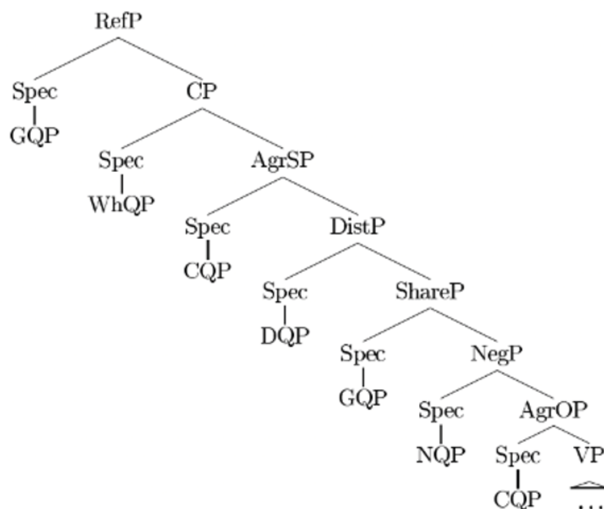
Turning to L2, Marsden explains that the quasi-plural morpheme 'tati' is crucial to restructure the initial values. Namely, example (14) and (26) are unambiguous in Japanese, and by Full Transfer, English-speaking learners of Japanese initially interpret (14) as ambiguous. With understanding a morpheme 'tati,' they come to reset their initial value of the Japanese universal quantifier. About (15), the rareness of such an example led Marsden to conclude the poverty of the stimulus argument. That is, learners are guided by options available in UG. Therefore, resetting the initial values about the Japanese universal quantifier by native Japanese speakers and learners of Japanese seems to go through different paths.

Then, what would be crucial evidence for Japanese-speaking learners of English to reset the initial value to acquire the English negative quantifier? As far as we know, there is no study about native English children's initial interpretation of the negative quantifier, so it is very difficult to imagine. Although the English negative quantifier appears at pre- and post-nominal positions (i.e., *nobody's election* vs. *the election of nobody*), such a positional difference is not enough to restructure the initial value for Japanese-speaking learners of English. So, we think that explicit instruction about the target interpretation may be a source of restructuring the initially instantiated value since the relevant inputs are rare. Wu and Ionin's (2021) work also supports this view. They explicitly instructed Chinese-speaking learners of English about ambiguous interpretations of English scope sentences such as (6) in the intervention study. But even if learners were taught the target interpretations explicitly, they could not generalize the availability of inverse scope to the other configuration. Hence, the acquisition of scopally ambiguous sentences by learners whose native language is scopally rigid cannot easily acquire the target interpretations. But can we say anything about the present results in broader perspectives?

As we observed earlier, there are superset-subset interpretations in quantifier interactions. In particular, both Marsden and Kimura discussed the features of the target lexical items. As Kimura discussed, QR may be an uninterpretable feature just like EPP, and if this was not acquired before the critical period, it may be a lot harder to acquire later in life. Furthermore, Kimura also as-

sumes that Japanese-speaking learners of English could not acquire a distributive feature of English *every*, and this may be a reason why they interpreted English *every* as a collective interpretation, which is a Japanese equivalent interpretation. In other words, they could not move *every* to the respective Spec position of the functional projection in the spirit of Beghelli and Stowell (1997). In their system, Beghelli and Stowell assume that each quantifier moves to the respective Spec position of functional projections.

(27)



(Beghelli & Stowell, 1997, p. 76)

Let us assume their system for now. According to Beghelli and Stowell, negative quantifiers bear [+Neg] feature, and [+Neg] feature is checked via Spec-Head agreement with Neg^0 head. They claim that the morpheme *no* of the negative quantifier carries logico-semantic features (Beghelli & Stowell, 1997, p. 73). If Spec-Head agreement licenses the [+Neg] feature, we can assume that the wide scope interpretation is coded at that position, while the narrow scope position is coded at the in-situ position. This could be an equivalent derivation of van Hout et al.: The wide scope reading is coded at the QRed position, while the narrow scope reading is at in-situ position, although they do not specify NegP nor [+Neg] on the negative quantifier. The most crucial condition in Beghelli and Stowell's system is 'agreement.' Does Japanese have the same 'agreement' system as English? Fukui and Sakai (2003) and Kuroda (1992) among others say 'no.' Kuroda (1992) and Fukui and Sakai (2003) investigate the Case/case marking system between English and Japanese and assume that languages are

parametrized as to whether agreement is forced or not and also claim that Japanese does not belong to forced agreement languages such as English. Here are the relevant examples:

(28) Multiple nominative case marking

Hiroshima-ga	huyu-ga	kaki-ga	oisii
-NOM	winter-NOM	oyster-NOM	be delicious

'In Hiroshima, oysters are delicious in winter.'

(Fukui & Sakai, 2003, p. 354)

In example (28), there are multiple nominative case particles *-ga* in one sentence.

(29) Case alterations

a.

Taroo-ga	Kumiko-ga/o	kawaii	to	omot-ta
-NOM	-NOM/ACC	pretty	that	though

'Taro thought Kumiko is pretty./ Taro considered Kumiko to be pretty.'

b.

Hanako-ga/no	siranai	koto-o	Taroo-ga	sitte-iru
-NOM/GEN	not-know	thing-ACC	-NOM	knows

'Taro knows something that Hanako does not know.'

(Fukui & Sakai, 2003, p. 354)

In (29), nominative case particle *-ga* is alternated with accusative case particle *-o* in (a) example or genitive case *-no* in (b) example. These examples indicate that Japanese Case/case marking is not licensed at Spec-TP agreement as other European languages, do hence, these researchers are motivated to claim that Japanese is not an 'agreement' language, unlike English.

Fukui and Sakai propose "[a] functional category has to be visible (i.e., detectable) in the primary linguistic data" (Fukui & Sakai, 2003, p. 327). To do so, they claim that the functional category has to have phonetic content in order to be pronounced, directly visible at Phonetic Form. Examining the potential functional lexical item such as an interrogative particle, case particle, and genitive case, Fukui and Sakai conclude "there is no known evidence that these elements trigger agreement/feature checking phenomena" (Fukui & Sakai, 2003, p. 366). Kuroda (1992) and Fukui and Sakai (2003) conclude that there is no compelling evidence for postulating a formal and mechanical feature checking mechanism via agreement as the English counterpart.

Without a feature checking mechanism via agreement, there is no reason that each quantifier moves to the respective Spec positions. As a result, it is plausible that Japanese is a scope rigid language. Agreement may be a key reason why Japanese-speaking learners of English cannot have the wide scope reading of the English negative quantifier. Although there is no equivalent

of the English negative quantifier in Japanese, 'without agreement' guides learners not to access the wide scope interpretation. Earlier, we proposed that the [-QR] feature be given to the English negative quantifier when native Japanese learned it. But typologically speaking, it is more plausible to assume that agreement is crucial. Hence, UG still plays an important role in acquiring a second language. Namely, 'without agreement' is the final stage of L1 Japanese/at the beginning of learning English (Full Transfer). Upon seeing the English negative quantifier, learners apply the 'no agreement' constraint, resulting in no wide scope interpretation by Japanese-speaking learners of English. Hence, the learning process is to restructure the value of the agreement system. This assumption matches the results by Japanese-speaking learners of English.

Conclusions

In this paper, we explored if Japanese-speaking learners of English were able to acquire the English negative quantifier, whose equivalent does not exist in Japanese. We considered the acquisition processes in terms of the Full Transfer/Full Access perspectives with two scenarios.

The relevant input is very rare, so it is very difficult for Japanese-speaking learners of English to acquire the target interpretations. Therefore, explicit instructions will be partially helpful to them. The present paper also pointed out that English-speaking learners of Japanese are more likely to acquire the Japanese type scope interpretations, although the available data is also rare. For the scope interpretations in the present paper, English native speakers can access both surface and inverse scope (or narrow and wide scope) interpretations. That was called superset readings, while Japanese native speakers access only a subset reading. These superset and subset readings can be equated with agreement and non-agreement languages in Beghelli and Stowell's system. That is, superset interpretations seem to be correlated with a language with the agreement language such as English, while a subset interpretation is equated with the non-agreement language such as Japanese. The question is why speakers with the agreement language are more likely to adapt the non-agreement language, but not vice versa. The answer for this question is beyond the scope of the present study.

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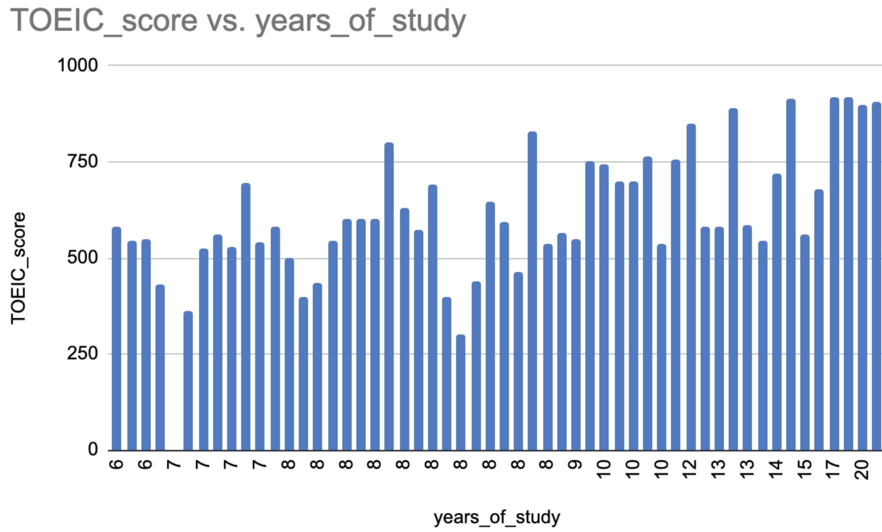
Appendix 1

Overview of TOEIC Scores in the Study



Appendix 2

Mixed Effect Models (Full Report)

Figure 3 (Native vs. Learners of English Comparison)

```
> summary(model)
Generalized linear mixed model fit by maximum likelihood (Laplace Approximation)
['glmerMod']
 Family: binomial  ( logit )
Formula: Interpretation ~ Scope + (1 | Topic) + (1 | Participant)
   Data: L1_data

     AIC      BIC   logLik deviance df.resid
   242.2    263.9   -115.1    230.2      270

Scaled residuals:
    Min      1Q  Median      3Q     Max
-1.9086 -0.3624 -0.1792  0.5239  4.4324

Random effects:
 Groups      Name        Variance  Std.Dev.
 Participant (Intercept) 3.737e-01 0.6113412
 Topic       (Intercept) 1.437e-09 0.0000379
Number of obs: 276, groups:  Participant, 23; Topic, 3

Fixed effects:
                    Estimate Std. Error z value Pr(>|z|)
(Intercept)          -2.3251     0.4415  -5.266 1.39e-07 ***
Scopepost_nom_wide    3.6209     0.5391   6.716 1.86e-11 ***
Scopepre_nom_narrow   3.0789     0.5130   6.001 1.96e-09 ***
Scopepre_nom_wide    -0.9288     0.7208  -1.289    0.198
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:
            (Intr) Scpps__ Scppr_nm_n
Scppst_nm_w -0.791
Scppr_nm_nr -0.815  0.716
Scppr_nm_wd -0.511  0.416   0.438

> Anova(model,type="III")
Analysis of Deviance Table (Type III Wald chisquare tests)

Response: Interpretation
             Chisq Df Pr(>Chisq)
(Intercept) 27.736  1  1.391e-07 ***
Scope       72.900  3  1.021e-15 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Figure 4 (Learners of English)

```
> summary(model)
Generalized linear mixed model fit by maximum likelihood (Laplace Approximation)
['glmerMod']
 Family: binomial  ( logit )
Formula: Interpretation ~ Scope + TOEIC_centered + (1 | Topic) + (1 |
Participant)
   Data: L2_data

     AIC      BIC   logLik deviance df.resid
   632.3    663.6   -309.1    618.3      641

Scaled residuals:
    Min      1Q  Median      3Q     Max
-7.0380 -0.5042  0.2090  0.4290  5.0472

Random effects:
 Groups      Name        Variance Std.Dev.
 Participant (Intercept) 1.1840   1.0881
 Topic       (Intercept) 0.2149   0.4636
Number of obs: 648, groups:  Participant, 54; Topic, 3

Fixed effects:
                      Estimate Std. Error z value Pr(>|z|)
(Intercept)         -0.9818818  0.3629501  -2.705  0.00682 **
Scopepost_nom_wide   3.6017534  0.3665600   9.826  < 2e-16 ***
Scopepre_nom_narrow  0.1421737  0.2667893   0.533  0.59410
Scopepre_nom_wide    2.9880797  0.3262446   9.159  < 2e-16 ***
TOEIC_centered       0.0005967  0.0012099   0.493  0.62189
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:
            (Intr) Scpps__ Scppr_nm_n Scppr_nm_w
Scppst_nm_w -0.324
Scppr_nm_nr -0.376  0.380
Scppr_nm_wd -0.355  0.477   0.426
TOEIC_cntrd -0.004  0.018   0.002      0.021

> Anova(model,type="III")
Analysis of Deviance Table (Type III Wald chisquare tests)

Response: Interpretation
                  Chisq Df Pr(>Chisq)
(Intercept)      7.3185  1   0.006825 **
Scope          149.8474  3  < 2.2e-16 ***
TOEIC_centered   0.2432  1   0.621892
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Figure 5 (Native vs. Learners of English Comparison)

```
> summary(model)
Generalized linear mixed model fit by maximum likelihood (Laplace Approximation) ['glmerMod']
 Family: binomial  ( logit )
Formula: Interpretation ~ L1_L2 * Scope + (1 | Topic) + (1 | Participant)
   Data: full_data

     AIC      BIC   logLik deviance df.resid
   877.7    926.2   -428.9    857.7      926

Scaled residuals:
    Min      1Q  Median      3Q     Max
-6.2962 -0.4881  0.1883  0.4252  5.4392

Random effects:
 Groups      Name        Variance Std.Dev.
 Participant (Intercept) 0.928    0.9633
 Topic       (Intercept) 0.157    0.3963
Number of obs: 936, groups:  Participant, 78; Topic, 3

Fixed effects:
                            Estimate Std. Error z value Pr(>|z|)
(Intercept)                  -2.5314     0.5240  -4.831 1.36e-06 ***
L1_L2L2                       1.5819     0.5201   3.041  0.00236 **
Scopepost_nom_wide            3.9610     0.5421   7.307 2.73e-13 ***
Scopepre_nom_narrow           3.3645     0.5191   6.481 9.10e-11 ***
Scopepre_nom_wide            -0.9483     0.7286  -1.302  0.19307
L1_L2L2:Scopepost_nom_wide   -0.4477     0.6269  -0.714  0.47514
L1_L2L2:Scopepre_nom_narrow  -3.2647     0.5800  -5.629 1.82e-08 ***
L1_L2L2:Scopepre_nom_wide     3.8636     0.7942   4.865 1.14e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:
                   (Intr) L1_L2L2 Scpps__ Scppr_nm_n Scppr_nm_w L1_L2L2:Scpps__ L1_L2L2:Scppr_nm_n
L1_L2L2            -0.808
Scppst_nm_w        -0.664  0.656
Scppr_nm_nr        -0.683  0.678   0.693
Scppr_nm_wd        -0.446  0.450   0.429   0.449
L1_L2L2:Scpps__     0.551 -0.665  -0.828  -0.567     -0.373
L1_L2L2:Scppr_nm_n  0.611 -0.720  -0.619  -0.894     -0.402      0.602
L1_L2L2:Scppr_nm_w  0.394 -0.491  -0.368  -0.390     -0.919      0.420    0.424

> Anova(model,type="III")
Analysis of Deviance Table (Type III Wald chisquare tests)

Response: Interpretation
              Chisq Df Pr(>Chisq)
(Intercept) 23.3402  1  1.357e-06 ***
L1_L2        9.2498  1   0.002355 **
Scope       87.7001  3  < 2.2e-16 ***
L1_L2:Scope 98.2915  3  < 2.2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

STYLE GUIDE FOR THE AUTHORS

Please note that we are changing from APA 6th edition to newer 7th edition. Authors are requested to submit manuscripts formatted in APA style (*American Psychological Association*, 7th ed.).

All manuscripts must include an abstract in English (maximum of 250 words). After the abstract please provide keywords.

Main text: 12 Times New Roman
Long citations (more than 40 words): 10 Times New Roman, indent by 1 tab either side, one empty line above and below, no quotation marks.

1.5 spacing

Format of headings

The following table demonstrates how to format headings in APA Style.

Level	Format
1	**Centered, Bold, Title Case Heading** Text begins as a new paragraph.
2	**Flush Left, Bold, Title Case Heading** Text begins as a new paragraph.
3	***Flush Left, Bold Italic, Title Case Heading*** Text begins as a new paragraph.
4	**Indented, Bold, Title Case Heading, Ending With a Period.** Text begins on the same line and continues as a regular paragraph.
5	***Indented, Bold Italic, Title Case Heading, Ending With a Period.*** Text begins on the same line and continues as a regular paragraph.

Note. In title case, most words are capitalized.

In-text citations (examples):

Author's name and date in brackets:
The experience of critical incidents and effective reflection upon them allows teachers to control their classroom actions more consciously and create critical events (CE's), which were described earlier as intended, planned and controlled (Woods, 1993).
Woods (1993) believes that critical events are structured and occur in well-defined staged of conceptualization . . .

Two authors:
(Ballantyne & Packer, 1995)
As Ballantyne and Packer (1995) demonstrate …

Three authors:
(Barker, Callahan, & Ferreira, 2009)

Subsequent use:
(Barker et al., 2009)

Six authors or more:
Lorenz et al. (1998) argued…
(Lorenz et al., 1998)

Authors whose last names are the same:
(D. Francis, 1985; H. Francis, 2004)

Online sources (unpaginated), provide paragraph or section title instead:
(Peterson & Clark, 1978, para. 4)
(Moss, Springer, & Dehr, 2008, Discussion section, para. 1)

No author, provide shortened title:
("Primary Teachers Talking," 2007)
(*Reflective Practice*, 2005, pp. 12–25)

Secondary citations:
Smith (as cited in Maxx & Meyer, 2000) noted that "there is . . . ."

Citation within citation:
As it has been noted that "there is no relevance . . . (Smith, 2005)" (Maxx & Meyer, 2000, p. 129).

& vs. and:
As Smithson and Stones (1999) demonstrated. . .
. . . as has been shown (Smithson & Stones, 1999) . . .

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Selected examples (for more consult APA manual 7th ed.):

Book, one author:
Goldberg, A. (2006). *Constructions at work*. Oxford University Press.

Book, two authors and more:
Jarvis, S., & Pavlenko, A. (2008). *Crosslinguistic influence in language cognition.* Routledge.

Translated book:
Freud, S. (1960). *Jokes and their relation to the unconscious*. (J. Strachey, Trans.). Routledge & K. Paul. (Original work published 1905).

Edited book:
Flowerdew, J., Brock, M., & Hsia, S. (Eds.). (1992). *Second language teacher education.* City Polytechnic of Hong Kong.

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Hammarberg, B. (2010). The languages of the multilingual. Some conceptual and terminological issues. *International Review of Applied Linguistics in Language Teaching, 48*, 91–104.

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Smith, A. (2007, June 12). Dying languages. *The Western Star*. Retrieved from: http://www.thewesternstar.com/

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Palmer, P. (2001). Now I become myself. *Yes Magazine,* blog post, 31 May. Retrieved from: http://www.yesmagazine.org/issues/working-for-life/now-i-become-myself

E-books:

Bolande, V. U. (1981). *On the psychology of humor.* Retrieved from: http://www.uflib.ufl.edu/ufdc/UFDC.aspx?n=palmm&c=psa1&m=hd2J&i=45367

Conference proceedings:

Souleles, N., & Pillar, C. (Eds.). (2014). Proceedings from the *First International Conference on the Use of iPads in Higher Education*. Paphos: Cyprus University of Technology.

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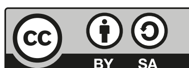

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