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# Reflections on educating prospective ELT teachers: Silence and health in Polish and Japanese school settings

In this paper we reflect on patterns of silence related to health within both Polish and Japanese school settings. This study goes beyond the typical perception of silence as a positive or negative phenomenon. While it refers to the utilization of agential silence as a pedagogical and learning tool, expertly employed by teachers, it also draws educators' attention to the need to raise teacher-candidates' empathic concern about students' various reasons for keeping silent. In this sense, the study transcends the understanding of student silence as merely highlighting their low communicative skills, as it may, in fact, indicate they have physical and mental health problems. The present study took a grounded theory approach. The corpora consisted of 320 utterances expressing primary, secondary, and tertiary subjects' opinions about silence, accessible in studies by Olearczyk (2016) and King (2013). Manual and software-based data analysis identified eight major categories of the meaning of silence. These categories enabled the selection of the core category of silence in relation to health, providing a fuller picture of the silences presented in the two abovementioned studies.

Keywords: English language teacher education and silence, silence and health

Słowa kluczowe: edukacja nauczycieli języka angielskiego a cisza, cisza i zdrowie



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### 1. Introduction

Silence goes hand in hand with sound. The significance of speech is in the words: "[d]eath and life are in the power of the tongue" (Proverbs 18, 21 King James Version). A notable case is the human-driven accelerating global-scale biodiversity loss, with vanishing traces of the sound of insects and birds, critically influencing our planetary well-being (WEF 2021, CITES 2024). Simultaneously, "noise pollution is one of the greatest environmental problems facing society" (Alerby, 2020: 49). Silence is also part of verbal communication. The way we speak and use pauses contributes to our unique conversational styles (Tannen, 1985: 107). Tannen (1985: 109) clarifies that a pause is a silence "when it is longer than expected, or in an unexpected place and therefore ceases to have its 'business as usual' function and begins to indicate that something is missing." Assuming that "speech is one of the most important aspects of functioning of a person as a rational being" (Czaplewska, 2016: 258), silent moments in spoken discourse can signal cognitive-communication difficulties. According to the World Health Organization (2020: 1), "[h]ealth is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Ergo, silence is connected with health.

In line with this, this study aims to uncover linguistic conceptualisations of silence signifying health in Polish primary and secondary, as well as Japanese tertiary school settings. The rationale behind this study is that a deep and intuitive understanding of various reasons for student silences, recognizing their patterns, and the underlying emotional states or thoughts can inform (future) (English language) teachers' professional decisions (e.g. Alerby, 2020; King, 2013; Olearczyk, 2016; Smith, King, 2018; Deocampo, 2020; Juma et al., 2022).

### 2. Research on silence: An overview

Research on nonverbal behaviour in education began in the early 1960s (Smith, 1995: 275). The concept of silence has been the topic of study in linguistics since the 1970s. It was initially associated with "negativity, passiveness, impotence and death" (Ephratt, 2008: 1910). In the 1990s it became obvious that

[d]epending on when and where it occurs in an interaction, silence can communicate the full range of emotional expression from scorn and dislike to indifference to sympathy and love. In many cultures around the world, such

as the Japanese, silence does not mean emptiness but instead is an effective and powerful means of communication. Unfortunately, many teachers tend to perceive student silence as passivity and indifference rather than as respect and attention (Smith, 1995: 277).

Since then there has been a growing interest in the role and place of silence in education. For example, Su et al. (2023) reviewed nine empirical articles published between 2000–2021 on the concept of silence as a pedagogical approach. There were four themes that emerged from this review, namely (1) paradoxes of silence as a pedagogy (Zembylas, Michaelides, 2004; Ha, Li, 2014; Hao, 2011; Ollin, 2008); (2) cultural dimensions of silence (Ha, Li, 2014; Hao, 2011; Lee, Sriraman, 2013; Ollin, 2008); (3) different uses of silence as a pedagogy (Ollin, 2008; Caranfa, 2006; Ha, Li, 2014; Lee, Sriraman, 2013; Hanna, 2021; Mazzei, 2011); (4) silence, power and critical pedagogy (Mazzei, 2011; Hao 2011; Wong, 2013; Hanna, 2021) (Su et al., 2023: 35). In the words of Su et al. (2023), incorporating training in silence pedagogy can help future teachers understand the value of silence in the classroom, as stated below:

The findings of this article may stimulate and support teacher reflections on how they use silence and how silence is perceived by students. In order to achieve this aim, educators may benefit from appropriate training and experience of this silence pedagogy first hand. This could feature within ongoing professional development programmes and we suggest it might form a part of the initial teacher education course curriculum so that silence as positive pedagogical practice could be studied and explored in depth. Also, getting students used to positive silences from the very start of their school lives is important so that these become an accepted staple of classroom practice (Su et al., 2023: 39).

Likewise, Bao (2023) reviewed 22 books on second language acquisition published between 2001–2022, where the meaning of silence was used as regards: (1) the silent period (Piske, Young-Scholten, 2008; Ritchie, Bhatia, 2009; Jordens, Lalleman, 2010; Larsen-Freeman, Long, 2014); (2) silence as low fluency (Carroll, 2001; Breen, 2001; Loewen, Sato, 2017); (3) silence as a resource (Mercer, Williams, 2014; Han, Cadierno, 2010; Schwieter, 2013; Robinson, Ellis, 2008; Gass, Mackey, 2012; Jordens, Lalleman, 2010; Larsen-Freeman, Long, 2014); (4) silence as pauses (Arabski, Wojtaszek, 2011; Doughty, Long, 2003; Ritchie, Bhatia, 2009; Taguchi, 2019; Herschensohn, Young-Scholten, 2013; Robinson, Ellis, 2008); (5) silence in communication (Derwing, Munro, Thomson, 2022; Taguchi, 2019; Hall, 2018; Nicole, Marta, 2022; Breen, 2001; Housen, Kuiken, Vedder, 2012; Herschensohn,

Young-Scholten, 2013; Robinson, Ellis, 2008; Saville-Troike, Barto, 2017; Gass, Mackey, 2012; Jordens, Lalleman, 2010; Loewen, Sato, 2017; Tomlinson, 2016); (6) **silent learning strategies** (Gass, Mackey, 2012; Jordens, Lalleman, 2010; Larsen-Freeman, Long, 2014; Loewen, Sato, 2017; Tomlinson, 2016); (7) **silence in pedagogy** (Breen, 2001; Larsen-Freeman, Long, 2014; Loewen, Sato, 2017; Tomlinson, 2016) (cited in Bao, 2023: 21–22).

The overlapping themes in the abovementioned reviews are 'silence as a pedagogy' and 'silence in pedagogy'. 'Silence as a pedagogy' has been problematized in journal articles as a complex, bifurcated construct unfavored by modern didactics, sensitive to various cultural settings, with a potential to be used "productively in teaching and learning," as well as to express varied objectives and interpretations (Su et al. 2023: 35). Likewise, there are only three books that conceptualize silence as helpful for classroom pedagogy: those by Larsen-Freeman and Long (2014), Loewen and Sato (2017), and Tomlinson (2016). Among these, Tomlinson's work is "the most silence-friendly," identifying various learning benefits associated with silence (Bao, 2023: 23).

Other studies focus on, *inter alia*, silence in the classroom (Jaworski, Sachdev, 1998; Wiśniewska, 2012; King, 2013), silence and speech (Caranfa, 2004, 2010, 2013); classroom silencing (Julè, 2004); cultivating nature through silence and solitude (Cooper, 2012; Forrest, 2013; Lees, 2022); silence as a pedagogical tool (Lees, 2012; Lees, 2016; Olearczyk, 2016; Alerby, 2020; 2019; Korol, 2022; Bao, 2023); silence as signs of language anxiety (Nessler, 2018; Maher, King, 2020).

In one respect, there are intentional, healthy silences (Alerby, 2020) with their various productive functions in the educational process, as well as health prevention. An instance of productive *classroom* silence is a moment when important information is followed by quiet moments for L2 learners to process, understand, and internalise it (Bao, 2014: 3). In post observation feedback conferences silent spells within an educative conversational framework – characterised by cognitively-demanding questions, critical comments, clarifications and recommendations – can possess 'agential qualities' that foster deeper understanding and critical thinking skills among prospective ELT teachers (Bąk-Średnicka, 2024).

In another respect, the presence of unintentional, unhealthy silences that cause discomfort, can signal problems with health. For example, children, adolescents, and adults who have not fully recovered from long-COVID can experience, *inter alia*, cognition-associated language difficulties within cognitive-communication disorders (e.g., Cummings, 2023; Lopez-Leon et al., 2022; Premraj et al., 2022; Davis et al., 2021; Cha, 2020; Gotlib et al., 2023; Kung et al., 2024). Apart from Covid-19, memory and verbal fluency

performance can be negatively impacted by non-communicable diseases and mental health issues, which may manifest themselves in a person being overweight or obese (Azzopardi et al., 2019; Li et al., 2008), such as thyroid disease (e.g. Holmberg et al., 2019; Vliet, 2021), diabetes (Sola et al., 2024), Lyme disease (McAuliffe et al., 2008; Gorlyn et al., 2023), disorders in cholesterol level (e.g. Yang, et al., 2020), or depression and anxiety (e.g. Loades et al., 2020; AlKandari, 2021; Kowalchuk, et al., 2022). Additionally, silence can be a reaction to fear of (cyber) bullying (Alerby, 2020; King, 2013; Bosacki, 2022; WHO, 2024).

In the context of English language classrooms a lack of spoken engagement and verbal reaction poses "a significant threat" to efficient language learning (King, 2013: 15, 62; Wiśniewska, 2012: 62–63). Students' silence may be a manifestation of low self-confidence, anxiety, an inferiority complex, or lack of knowledge and skills. Inability to communicate in a language of our choice or when we need to is akin to being deprived of "a typically human form of activity," or being "condemned" to "tragic" misunderstandings (Krzyżak, Michalik, 2020: 88)¹. There are also infamous examples of how "schools teach silencing" (Losey, 1997 as cited in Lemak, 2012: 25) by means of rhetorical questions (Alerby, 2020: 47–48), when teachers do not expect any answers, and when they do not actually create a space for students to exercise their autonomy in practising and experiencing silence (Su et al., 2023: 39; Cleveland, 2022: 138; Caranfa, 2013: 577; Olearczyk, 2016: 131).

### 3. Retrieving information from semantic memory: Silent moments

Retrieving information from memory is an activity of the entire mind and is comparable to the processes involved in problem-solving and thinking (Bruner, 1973 as cited in Hankała, 2009: 151). This mental activity involves physio-chemical changes within the nervous system (Hankała, 2009: 12). It is in the form of both strategic (largely controlled) and non-strategic (largely automated) information retrieval, with the latter occurring at a much faster pace than the former (Hankała, 2009: 14). Working memory capacity participates in retrieval of information based on "controlled effortful search" rather than "search that is based on automatic activation" (Conway, Engle, 1994: 354). In Collins and Quillian's model of working memory (Collins, Quillian, 1969: 246) retrieval times or reaction time depend on memory organisation and are shorter in the

<sup>&</sup>lt;sup>1</sup> Cf. Alerby (2020: ix) recollects a critical event when she did not know a foreign language well enough to converse with ease, recalling that "the situation became more and more uncomfortable, and I felt incredibly frustrated at not being able to express what I really wanted to say."

case of human memory with "well-ordered hierarchies" for storing semantic information that are "part of the common culture." In some cases, though, "hierarchies are not always clearly ordered"; also, "people surely store certain properties at more than one level in the hierarchy" (Collins, Quillian, 1969: 242). In Collins and Loftus' models of semantic memory (Collins, Loftus 1975: 409) the strength and travel time of connections and associations between different concepts or nodes within the semantic network determine how quickly the search will proceed in the semantic memory. The activation and the reaction time is determined by "the amount the first concept primes the second concept" (Collins, Loftus, 1975: 417).

In normal conversations there occur slips of the tongue, speech errors, disfluencies (Fromkin, Bernstein Ratner, 1998: 312-313), or 'Freudian slips' (Baars, 1980 as cited in Fromkin, Bernstein Ratner, 1998: 324). The tip-ofthe-tongue phenomenon is when we have a feeling-of-knowing (FOK) experience, but we do not remember a piece of information. Hart's experiments (Hart, 1965: 210, 214) confirmed that FOK metacognitive assessment "can be used as relatively accurate indicators of what is and is not in memory." Failure to retrieve some information does not mean that it is not stored in memory (Hart, 1965: 214). Reder (1987: 37) discovered that we "assess our memories before we do a careful search of memory." If the FOK is weak, we either conclude that the answer is not known and hence, we do not initiate a memory search, or we resort to other strategies such as calculation or inferential reasoning. As we get older working memory deficits result from our "reduced ability to inhibit irrelevant information" due to our "reduced attentional resources" (Hasher, Zacks, 1988 as cited in Conway, Engle, 1994: 369). In turn, in young people working memory can be affected by the side-effects of Covid-19, or some non-communicable diseases.

L2 learner desire to communicate (DC) develops, or fails to develop into willingness to communicate (WTC) (MacIntyre, Legatto, 2011: 165). L2 learner WTC is dependent on their vocabulary retrieval and subject to their language anxiety (Peng, 2020: 144). Learner language anxiety can lead to speech avoidance and silence (MacIntyre, Legatto, 2011:166). Moreover, L2 learners' cognitive resources are used up in ensuring the accuracy of their communication, which in turn affects their "ability to search for new vocabulary and plan the next utterance" (MacIntyre, Legatto, 2011: 166), which can also cause silent spells and pauses.

To sum up, there are many psychological, linguistic, educational, and communicative factors that are dynamic in character and prone to variation during speech (Pawlak, Mystkowska-Wiertelak, 2015). There are also health-related reasons that may affect the process of retrieving information from the semantic memory and which result in silent moments.

### 4. A case study: Patterns of silence and health

The research method in the present study is the grounded theory approach. This qualitative procedure was used to identify and understand patterns of silence in relation to health in Polish and Japanese school settings. This study used manual and software-based<sup>2</sup> data analysis. The corpora consisted of 320 utterances (C320) expressing students' and teachers' opinions about silence in Polish primary and secondary schools (C277), as well as Japanese tertiary students' perspectives on silence during EFL classes (C43) (see Table 1). The corpora were accessible in studies by Olearczyk (2016) and King (2013).

Table 1. The corpora used in this study

Corpora of utterances	Source	Tokens
C277	Olearczyk 2016 / Poland	5 873
C43	King 2013 / Japan	1 679

During the process of reviewing book-format publications on silence for this study, three books discussing silence in education from Polish, Japanese, and Swedish perspectives were initially selected. However, the Swedish book had fewer citations of subjects' opinions compared to the others and was ultimately rejected. The manual and software-based data analysis identified a core category of silence in relation to health built on eight major categories of the meaning of silence, which will be presented below. This study aimed to answer the following questions:

- 1. What are the intracultural major categories of silence in C277 and C43?
- 2. What is the core category of silence related to health in C320?

# Study 1: Patterns of silence in the context of Polish primary and secondary school settings

Olearczyk's (2016: 85) exploratory study explored the possibilities of introducing 'the culture of silence' in schools in Poland as a context that is more conducive to focus and learning. 3152 primary, lower secondary, and secondary school teachers (and school heads), as well as students from the Małopolska region took part in the study in 2015 and in 2016. They shared their opinions via a diagnostic survey method, i.e., questionnaires and

<sup>&</sup>lt;sup>2</sup> LancsBox 6.0 and X software packages: Lancaster University corpus toolbox. Tools available in the LancsBox software package are: KWIC, GraphColl, Whelk, Words, Ngrams and Text. Descriptive statistical analysis applied in this study includes absolute and relative frequency, dispersion, collocations, and concordances.

unstructured interviews. To summarize, the respondents believe that silence has educational value only in specific situations, such as solemn moments (2016: 111). About 20% of primary teachers feel ready "to shape the need for silence in pupils" (2016: 123); yet, they do not know how to use it as a 'pedagogical rule' (2016: 138). Their understanding of shaping silence in schools is associated with green space near the school and classrooms with good acoustics (2016: 264), rather than, for example, meditation (2016: 262). They believe that the family plays a key role (2016: 152); and yet, many primary teachers do not see the possibility of collaborating with parents on this topic (2016: 251). Primary teachers still need to understand that silence is a way of working, such as in observation, listening, waiting, being patient, and holding a pause (2016: 140). When it comes to silence in language classes, primary pupils' responses are not consistent, since while some pupils indicated subjects such as Polish and English (or mathematics) as "noisy", others referred to these lessons as "always quiet" (2016: 179). This corresponds with a secondary teacher's note that "in foreign language classes, silent and speaking moments must alternate" (U255). Overall, the opinions indicate that in the primary school silence is a positive and desirable state and its lack is linked to low authority in the teacher, which negatively determines students' behaviour during the lessons (2016: 179). About one third of the pupils experience negative emotions with silence in the classroom linked to time for questioning and being unprepared (2016: 126, 179, 230).

Category 1. In Olearczyk (2016) (C277; 5 873 tokens) 277 respondents' phrases, single- sentence, and several-sentence utterances are displayed. The respondents are primary and lower secondary students (sub-corpus C97); secondary students (sub-corpus C31); primary and lower secondary teachers (sub-corpus C107); as well as secondary teachers and school heads (sub-corpus C42). Their expressions illustrate how they understood the role and place of silence in their lives and in their schools. The most frequent words in this small corpus show that they talked about silence and positive and negative topics related to it, constructing subordinate clauses trying to place this concept within physical and mental entities that they had at their disposal in their conceptual repertoires. Interestingly, the high frequency of the negation *not* (2.5%) implies that they expressed their opinions through a negative lens, communicating what silence is not, or what silence does not give, or its emptiness, rather than what it is, or what it offers.

Category 2. C277 contains C97 (1 207 tokens) with primary and lower secondary students' utterances<sup>3</sup>. The most frequent words in C97 re-

<sup>&</sup>lt;sup>3</sup> Prior to the school reform of 2017 in Poland primary school was 6 years, followed by a 3 year lower secondary school. Now there is an 8-year primary school for pupils aged 7 to 14 years.

vealed that the negative scope of phrases in C277 was due to C97, where the primary and lower secondary students shared their negative opinions about silence (see Olearczyk, 2016: 122, 149). Overall, primary pupils in 5<sup>th</sup> and 6<sup>th</sup> grades as well as lower secondary pupils shared these negative opinions. The most frequent phrases in C97 (*I don't like, silence is, (don't like) silence, there isn't, at home, is for, silence when, and not, there is silence*) and most frequent collocates of 'silence' (*is, silence, not, needed, then, during, and, me*) confirm that silence might be neither desired at home (U2, U75, U77) nor at school, or when with friends (Table 2). The youngest respondents are afraid of silence and do not like it. They may prefer noise. This corresponds with the fact that primary schools are noisier when compared to secondary schools. In C31<sup>4</sup> this state of mind was verbalized by a secondary student who, in his extensive statement, talked about his childhood and memories when he was scared of silence when alone at home, and when he wanted to break it (U17).

Table 2. C97 – The utterances of Polish primary and lower secondary pupils, available in Olearczyk (2016)

C97				
Top ten types <sup>1</sup>	Top ten 2-grams types	Collocates of 'silence'		
nie [no, not]	nie lubię [I don't like]	jest [is]		
jest [is]	cisza jest [silence is]	cisza [silence]		
się [oneself]	lubię ciszy [(I don't) like si- lence]	nie [no, not]		
i [and]	nie ma [there is no]	potrzebna [needed]		
cisza [cisza]	w domu [at home]	wtedy [then / at that time / when]		
kiedy [when]	jest dla [is for]	podczas [during]		
w [in]	ciszy gdy [silence when]	i [and]		
ciszy² [silence]	ciszy kiedy [silence when]	mi³ [to me]		
(nie) lubię [(don't) like]	i nie and not]	_		
na [on / for]	jest cisza [there is silence]	_		

<sup>&</sup>lt;sup>1</sup>i.e. no, is, oneself, and, silence, when, in, silence (in the accusative), (do not) like, on.

**Category 3**. **C107** (2 952 tokens) is a sub-corpus of C277 with utterances of primary and lower secondary teachers and school heads. The most

<sup>&</sup>lt;sup>2</sup> ciszy is in the accusative case in Polish.

<sup>&</sup>lt;sup>3</sup> to me is an informal form of mnie.

<sup>&</sup>lt;sup>4</sup> C31 (1 080 tokens) is a corpus within C277 of secondary students' utterances, where the perception of silence was problematized into the phrase 'silence is for me something like ... .'

frequent words in this small corpus are: in, oneself, on, and, not, is, with, to, silence in the nominative and accusative. The teachers describe their attitude towards silence by referring to certain places and situations that best illustrate their point. The picture becomes clearer when we consider the collocates of 'silence' (is, silence, and, not, this, in, with, oneself) as well as the most frequent phrases (oneself on, is not, during, in silence, can be, maintain silence, at school, good manners, with parents, oneself) which pinpoint that the teachers talked about silence in the context of shaping students' cultural behaviour at school, and in collaboration with their families. The language employed by the teachers, including phrases such as 'they are not able to', 'as a consequence', or 'lack of skills', subtly reveals their underlying focus on gaps in their students' competences. The primary teachers have a pragmatic attitude towards silence, linking 'remaining silent' or 'maintaining silence' in certain situations with the overlapping concepts of cultural behaviour<sup>5</sup> and good manners; they also mention students' parents as desired partners in shaping in their students' behaviour and manners, even though collaboration with parents is a challenge<sup>6</sup>. When compared to secondary teachers in C42<sup>7</sup>, though, primary teachers were hedging their opinions with modal verbs, as if they did not want to "sound completely certain about something" (Julé, 2004: 34).

Category 4. In C277 health is conceptualized one-sidedly. Silence is a desirable but undervalued state in Polish schools. Most examples provided by the respondents illustrated the unfortunate physical and mental side effects of noise. There are a few instances, though, of mentioning health problems that might have been caused by being silent as a result of being unable to speak. An instance is the opinion of a lower secondary teacher about 'silent pupils' who are different or weaker than their normally behaving peers, whose aggression rises when the noise is unbearable, and who direct their aggression towards those quiet pupils (U66). This intolerance towards the use of silence by other people can indeed lead to misjudging not only the language of those people, but also their overall competencies (Lemak, 2012). Another lower secondary teacher said that when a pupil keeps silent, it can be a sign that they are 'paralysed with fear', for example, when expected to speak publicly in front of their peers (U79). This fact was confirmed by

<sup>&</sup>lt;sup>5</sup> cf. "according to many primary school teachers silence is an element of cultural behaviour" (Olearczyk, 2016: 137, 173, 177).

<sup>&</sup>lt;sup>6</sup> cf. "in getting to know and introducing silence, the key role should be played by family upbringing and school education, as a conscious process of the person's development and changes in social relations" (Czerepaniak-Walczak, 1999: 8).

<sup>&</sup>lt;sup>7</sup> C42 (615 tokens) is a sub-corpus of secondary teachers' utterances, where the word 'silence' collocates with the phrase used to define it as 'an element of ....'

a lower secondary respondent who said that she has to face silence when at group meetings, when other peers ignore her; she handles silence poorly and it is a negative and unpleasant feeling for her (U86). These examples stand in opposition to the idea of shaping creative silence in Polish educational settings as "solitude, [and] free from fear" (Olearczyk, 2022: 164).

### Study 2:

### Patterns of silence in the context of Japanese tertiary ELT classrooms

In junior schools and colleges in Japan the English language, which is a compulsory subject at pre-tertiary education, is taught by Japanese teachers using the Yakudoku Method, which resembles the Grammar Translation Method (Hino, 1988: 53). This pedagogical approach effectively silences Japanese EFL pupils and students (King, 2013: 8). In practice, when in communicative situations, Japanese students make "long pauses" or have "the agonizing period of silence" for "translating what has been said into Japanese and then going through the same process when answering" (Mulligan, 2005: 33 as cited in King, 2013: 73). To sum up, students "loath to stand out by vocalising in the L2 during lessons" because of "[t]he pervasiveness of bullying (*ijime*) within the education system" (King, 2013: 82).

King's study (2013) is on 924 EFL Japanese tertiary students in Japan. The data were gathered from nine universities in the 2009/2010 and 2010/2011 Japanese academic years. The macro-level silence of non-participation during English classes was analysed by an observation instrument, the Classroom Oral Participation Scheme (COPS); whereas micro-level silence was analysed via semi-structured and retrospective interviews. In total, 90 students' modality was audio-coded during a period of 48 hours of classroom observations; also, 13 Japanese interviewees' opinions were examined through the abovementioned interviews. The findings were interpreted through dynamic systems theory (DST). In the DST interpretation, either cognitive or sociocultural routes attract L2 learners into certain behaviour, and into a state of stability which, even though never long lasting, is difficult to reorient towards different behaviour (King, 2013: 85, 99). This study reveals a "strong, national trend towards silence in Japan's second language classrooms" (2013: 84).

**Category 5.** In King's study (2013), (**C43**; 1 679 tokens), 43 phrases, single-sentence, and several-sentence utterances of 13 Japanese interviewees, collected through the abovementioned semi-structured and retrospective interviews, are displayed. The respondents are eight Japanese university students from non-English majors (C30) and five university students majoring in English as a foreign language (EFL) (C13). Their main phrases are: *I think*,

I don't, the teacher, to be, the class, in the, want to, you know, a question, and I. These phrases may indicate the interviewees' tendency to focus on expressing their opinions and beliefs about the behaviour of their specific teacher and a specific group of students by means of negative statements, specifying also a location. The point of reference here is the word a question or questions, used in C43 eight times, and shown in a negative context, as in these examples:

"But um af- after asking a question nobody answered it and teacher went on the class so nobody answered it. So the atmosphere is absolutely awkward (107-108); "The teacher told us exactly what questions were on the test during the class so getting the credit was easy (112); "I think when the teacher nominates me to answer a question, I feel I become the centre of attention and also I feel I'm being watched whether I get it right or wrong" (115); "You know when a teacher asks students 'any questions?' and everybody goes quiet, then I wouldn't say 'yes, I have a question' because I don't want to be the centre of the attention, you know. Yeah." (115); "As soon as I catch the teacher's eye, and say something like 'good morning' or whatever, if this impression stays with the teacher, once class starts and teacher looks for someone to answer a question, I'll definitely be the first to be nominated and will be the centre of attention only because my eyes met the teacher's just before. So, as I don't want to answer any questions, I stay silent when the teacher enters the room" (121); "We simply translate texts and answer some questions, page after page from a textbook. I couldn't be bothered" (124).

The interviewees express also an intention to explain their point by using the conversational filler *you know*, to engage the listener and get them on their side.

Category 6. C30 (1 216 tokens) is a sub-corpus of C43. It contains 30 utterances of Japanese students from faculties other than English at Japanese universities who shared their views on silence in English lessons. The most frequent words, the top ten phrases, and the contexts of using the words *silent* and *silence* (Table 3), when examined in the 30 utterances, give an overall impression of Japanese tertiary EFL students in the English lesson. Average EFL Japanese tertiary students who do not major in English studies feel self-conscious when confronted with their EFL teachers with whom they are to either interact or answer questions. They feel the English language is incomprehensible for them, they cannot answer teachers' questions correctly, and they have low motivation to change this situation. The interviewees talk about strategies to survive in English classes, such as cliques, curling up in the chair, and keeping silent. As stated by Bosacki (2022: 158),

young people who are neither verbally nor physically aggressive, use silence as "a form of resistance", or as "a strategy to preserve their agency and a sense of self"

Table 3. C30 – the utterances of Japanese tertiary students NOT majoring in English, available in King (2013)

C30				
Top ten types	Top ten 2-grams types	Contexts of 'silent, silence'		
I	the teacher	I stay silent		
the	I don't	what is this silence for?		
to	I think	so the silence is so noticeable		
and	the class	I tend to fall into a long silence or think about something else		
n't	to be	_		
it	youknow	-		
а	say something	-		
of	want to	-		
be	to the	-		
do	when the	-		

Category 7. C13 (449 tokens) is a sub-corpus of C43 that comprises 13 utterances of 5 interviewees majoring in English as a foreign language. In C13 the most frequent words, the ten most frequent phrases, and contexts of *silent* and *silence*, as shown in Table 4, indicate that the interviewees perceive their English classes as a collective endeavor to remain silent given their inability to alter the teaching methods, or the teacher (King, 2013: 155). Here one Japanese tertiary student used *we* seven times (44% of all 16 uses in C13), indicating their belonging to the community of students. Yet, there are individuals contemplating individual learning in the future. They explain the phenomenon of silent lessons by referring to the Japanese community and cultural norms where people are mindful of others and where silence has meaning. They break silence hesitantly, if at all, and remain listeners instead. Yet, they express their shared discomfort that students 'do not understand the teacher's class,' as well as disappointment that good students choose to remain silent.

Category 8. In C43 (see Category 5) health was a point of reference for attributing the silent behaviour of some Japanese students, or cases of sleeping in the classroom to an "ill-effect of insomnia" (King, 2013: 99). Public speaking in the English language is here synonymous with "the fear" of humiliation and a face-threatening act (FTA) that arise from "acute

hyper-sensitivity" towards others and "an almost neurotic dread of negative evaluation" (King, 2013: 127, 156). The problem of bullying/*ijime* (King, 2013: 65, 77–8, 82, 87) may be also linked to suicidal behaviour.

Table 4. C13 – the utterances of Japanese tertiary students majoring in English, available in King (2013)

C13				
Top ten types	Top ten 2-grams types	Contexts of 'silent, silence'		
I	I think	teamwork to make silence		
to	kind of	the silent students were not 'pulling their weight'		
it	to be	all they did was to keep silent and say we don't understand this teacher's class		
the	we were	_		
we	talking about	_		
's	to speak	_		
а	were talking	_		
so	my role	_		
n't	_	_		
in	_	_		

### The core category of silence related to health

The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) (2022) outlines disorders diagnosed in children and adolescents that can be mechanically traced in the corpora of utterances available in Olearczyk (2016) and King (2013). These disorders, followed by diagnostic code numbers, include social anxiety disorder (229, 233), apathy (685), bullying (333), conduct disorder (533), shyness (233, 766), panic disorder (234), and depression (186). The manifestation of social anxiety here is speaking anxiety. There are mental health conditions that affect (English language) students. Firstly, in English language (secondary) classes there are small groups of students with high level of speaking anxiety (e.g. Nessler, 2018), but they do not exert the same collective influence on class dynamics as in Japanese (and Korean) schools and universities known as taijin kyofusho symptoms (対人恐怖症) (DSM-5, 2022: 371). **Secondly**, conduct disorders are manifested through bullying others into silence (ijime) in Japanese educational settings. In Polish schools, moments of silence can create internal tension for students, which can find an outlet through teasing and intimidatory interactions with others, as well as uncontrolled laughter. **Thirdly**, apathy is a neurocognitive disorder characterised by "diminished motivation and reduced goal directed behaviour accompanied by decreased emotional responsiveness" (DSM-5, 2022: 922). These symptoms can be traced, for example, in the utterances of Japanese non-language majors. To sum up, these points draw a connection between the concept of silence in school settings and neurocognitive disorders. They align with the perspectives presented in Olearczyk (2016), where silence is a desired state beneficial for cognitive health, as well as in King (2013), where silence can help explain and manage neurocognitive disorders.

### 5. Conclusions

Silence can be imposed upon an individual by an external force, or as a result of memory access failure as a reaction to being forced to speak in public in a foreign language in which one is not sufficiently fluent to communicate comfortably. Silence can be also an expression of lack of knowledge. It can be caused by mental health issues, chronic illness, sleep disorders, or it can occur due to fear of (cyber)bullying. We can observe a growing concern to include the concept of silence pedagogy in preservice ELT teacher education (e.g. Harumi, 2020; Karas, Faez, 2020; Su et al., 2023; Bąk-Średnicka, 2024). A richer understanding of the role and place of silence, especially in relation to health-related reasons for student silence, can be provided by incorporating Young Adult literature into teacher education programs (e.g. Pytash, 2013).

### 6. Limitations

The corpora used in this study are small, targeted, and collected under very specific and narrow circumstances. The small size of the corpora can also be their advantage as the "tight and even" population of teachers and students allowed us "to drill deep into the banal – the frequent and common features of speech and writing whose high recurrence even in small amount of data underpin their importance in the unfolding discourse" (Farr, 2011: xv). Likewise, even though the Japanese case describes tertiary students, the respondents indicate that their fear of public speaking in English started at the earlier levels of education, as is the case of Swedish upper secondary students in Nessler's study (2018). Problems with inadequate speaking practice are partly attributed to the neglect of primary school teachers and the

high rate of teacher turnover in pre-tertiary schools (King, 2013: 77; Nessler, 2018: 22).

#### **BIBLIOGRAPHY**

- Alerby E. (2020), Silence within and beyond pedagogical settings. Cham: Palgrave Macmillan.
- Alerby E. (2019), Places for silence and stillness in schools of today: A matter for educational policy. "Policy Futures in Education", Vol. 17, No 4, pp. 530–540.
- AlKandari N.Y. (2021), Students anxiety experiences in higher education institutions, (in:) Kalinin V. (ed.), Anxiety Disorders The New Achievements. IntechOpen, pp. 1–17.
- Arabski J., Wojtaszek A. (eds.) (2011), *Individual learner differences in SLA*. Bristol: Multilingual Matters.
- Azzopardi P.S. et al. (2019), Progress in adolescent health and wellbeing: Tracking 12 headline indicators for 195 countries and territories, 1990–2016. "LANCET", Vol. 393, No 10176, pp. 1101–18.
- Baars B.J. (1980), *The competing plans hypothesis: An heuristic viewpoint on the causes of errors in speech*, (in:) Dechert H.W., Raupach M. (eds.), Temporal variables in speech. The Hague: Mouton, pp. 39–50.
- Bao D. (2014), *Understanding silence and reticence: Ways of participating in second language acquisition*. London: Bloomsbury Academic.
- Bao D. (2023), Silence in English language pedagogy. From research to practice. Cambridge: Cambridge University Press.
- Bąk-Średnicka A. (2024), *The agential qualities of silence in post-observation feed-back sessions*. "Studia Linguistica Universitatis lagellonicae Cracoviensis", No 141, pp. 219–230.
- Bosacki S. (2022), Multifaceted silences in adolescence: Implications for social cognition and mental health, (in:) Stern J. et al. (eds.), The Bloomsbury Handbook of Solitude, Silence, and Loneliness. Great Britain: Bloomsbury, pp. 151–161.
- Breen M. (2001), Learner contributions tolanguage learning: New directions in research. Harlow, UK: Pearson Education.
- Bruner J.S. (1973), Beyond the information given: Studies in the psychology of knowing. New York: W. W. Norton.
- Caranfa A. (2004), *Silence as the foundation of learning*. "Educational Theory", No 54, pp. 211–230.
- Caranfa A. (2006), *Voices of silence in pedagogy: Art, writing and self-encounter.* "Journal of Philosophy of Education", Vol. 40, No 1, pp. 85–103.
- Caranfa A. (2010), *Contemplative instruction and the gifts of beauty, love, and silence*. "Educational Theory", Vol. 60, No 5, pp. 561–585.
- Caranfa A. (2013), Socrates, Augustine, and Paul Gauguin on the reciprocity between speech and silence in education. "Journal of Philosophy of Education", Vol. 47, No 4, pp. 577–604.

- Carroll S.E. (2001), *Input and evidence: The raw material of second language acquisition*. Amsterdam: John Benjamins.
- Cha S. (2020), Nine in ten recovered COVID-19 patients experience side-effects study. Reuters, 29 September.
- CITES "Home" cites.org/eng. Accessed 23 Feb. 2024.
- Cleveland R.E. (2022), *Children and silence*, (in:) Stern J. et al. (eds.), The Bloomsbury Handbook of Solitude, Silence and Loneliness, Great Britain: Bloomsbury, pp. 137–150.
- Collins A.M., Loftus E.F. (1975), A spreading-activation theory of semantic processing. "Psychological Review", Vol. 82, No 6, pp. 407–428.
- Collins A.M., Quillian M.R. (1969), *Retrieval time from semantic memory*. "Journal of Verbal Learning and Verbal Behaviour", No 8, pp. 240–247.
- Conway A.R., Engle R.W. (1994), Working memory and retrieval: A resource-dependent inhibition model. "Journal of Experimental Psychology", Vol. 123, No 4, pp. 354–373.
- Cooper D.E. (2012), *Silence, nature and education*, (in:) Hägg H.F., Kristiansen A. (eds.), Attending to silence: Educators and Philosophers on the art of listening. Kristiansand: Portal Academic, pp. 54–65.
- Cummings L. (2023), Long COVID: The impact on language and cognition. "Language and Health", No 1, pp. 2–9.
- Czaplewska E. (2016), Children with language disorders or late bloomers the problem of differential diagnosis. "Polish Psychological Bulletin", Vol. 47, No 3, pp. 258–264.
- Czerepaniak-Walczak M. (1999), Daleko od szansy. Szczecin: PoNad.
- Davis H.E. et al. (2021), Characterizing long COVID in an international cohort: 7 months of symptoms and their impact. "E Clinical Medicine", No 40, p. 101019.
- Deocampo M.F. (2020), Issues and challenges of English language teacher-trainees' teaching practicum performance: Looking back and going forward. "Language Education and Acquisition Research Network Journal", Vol. 13, No 2, pp. 486–503.
- Derwing T.M., Munro M.J., Thomson R.I. (eds.) (2022), *The Routledge handbook of second language acquisition and speaking*. New York: Routledge.
- Diagnostic and Statistical Manual of Mental Disorders (2022), Fifth Edition, Text Revision. Washington, DC, American Psychiatric Association.
- Doughty C.J., Long M.H. (eds.) (2003), *The handbook of second language acquisition*, Vol. 27. Malden. MA: Blackwell.
- Ephratt M. (2008), *The functions of silence. "Journal of Pragmatics"*, No 40, pp. 1909–1938.
- Farr F. (2011), The discourse of teaching practice feedback. New York: Routledge.
- Forrest M. (2013), *Practising silence in teaching*. "Journal of Philosophy of Education", Vol. 47, No 4, pp. 605–622.
- Fromkin V.A., Bernstein Ratner N. (1988), *Speech production*, (in:) Berko Gleason J., Bernstein Ratner N. (eds.), Psycholinguistics, 2<sup>nd</sup>ed. USA: Wadsworth, pp. 309–346.

- Gal S. (1991), Between speech and silence: the problematics of research on language and gender. "Papers in Pragmatics", Vol. 3, No 1, pp. 1–38.
- Gass S.M., Mackey A. (2012), *The Routledge handbook of second language acquisition and speaking*. New York: Routledge.
- Gorlyn M., Keilp J.G., Fallon B.A. (2023), Language fluency deficits in post-treatment Lymedisease syndrome. "Archives of Clinical Neuropsychology", Vol. 38, No 4, pp. 650–654.
- Gotlib I.H. et al. (2023), Effects of the COVID-19 pandemic on mental health and brain maturation in adolescents: Implications for analysing longitudinal data. "Biological Psychiatry Global Open Science", Vol. 3, No 4, pp. 912–918.
- Ha P.L., Li B. (2014), Silence as right, choice, resistance and strategy among Chinese 'Me Generation'students: implications for pedagogy. "Discourse: Studies in the Cultural Politics of Education", Vol. 35, No 2, pp. 233–248.
- Hall J.K. (2018), Essentials of SLA for L2 teachers: A transdisciplinary framework. New York: Routledge.
- Han Z., Cadierno T. (eds.) (2010), *Linguistic relativity in SLA: Thinking for speaking*. Clevedon: Multilingual Matters.
- Hanna A. (2021), Silence at school: Issues and experiences of silence in pedagogy at a secondary school. "British Educational Research Journal", Vol. 47, No 5, pp. 1158–1176.
- Hankała A. (2009), Aktywność umysłu w procesach wydobywania informacji pamięciowych. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego.
- Hao R.N. (2011), *Rethinking critical pedagogy: implications on silence and silent bodies.* "Text and Performance Quarterly", Vol. 31, No 3, pp. 267–284.
- Hart J.T. (1965), *Memory and the feeling-of-knowing experience*. "Journal of Educational Psychology", No 56, pp. 208–216.
- Harumi S. (2020), Approaches to interacting with classroom silence: The role of teacher talk, (in:) King J., Harumi S. (eds.), East Asian perspectives on silence in English language education. Bristol: Multilingual Matters, pp. 37–59.
- Hasher L., Zacks R.S. (1988). Working memory, comprehension, and aging: A review and a new view, (in:) Bower G.H. (ed.), The psychology of learning and motivation, 22, New York: Academic Press, pp. 193–225.
- Herschensohn J.R., Young-Scholten M. (eds.) (2013), *The Cambridge handbook of second language acquisition*. Cambridge: Cambridge University Press.
- Hino N. (1988), Yakudoku: Japan's dominant tradition in foreign language learning. "JALT Journal", Vol. 10, No 1/2, pp. 45–55.
- Holmberg M.O, Malmgren H., Berglund P. et al. (2019), Structural brain changes in hyperthyroid Graves' disease: protocol for an ongoing longitudinal, case-controlled study in Göteborg, Sweden—the Cog Thy project."BMJ Open", No 9, p. 031168.
- Holy Bible. King James Version (1933), Great Britain: Collins' Clear-Type Press.
- Housen A., Kuiken F., Vedder I. (eds.) (2012), *Dimensions of L2performance and proficiency: Complexity, accuracy and fluency in SLA.* Vol. 32. Amsterdam: John Benjamins.

- Jaworski A., Sachdev I. (1998), *Beliefs about silence in the classroom*. "Language and Education", Vol. 12, No 4, pp. 273–292.
- Jordens P., Lalleman J. (eds.) (2010), *Investigating second language acquisition*. Vol. 12. Berlin: Walter de Gruyter.
- Julé A. (2004), Gender, participation and silence in the language classroom. Sh-shushing the girls. New York: Palgrave Macmillan.
- Juma O. et al. (2022), Students' classroom silence and hopelessness: The impact of teachers' immediacy on mainstream education. "Frontiers in Psychology", No 12, pp. 1–7.
- Karas M., Faez F. (2020), Communicative Language Teaching and silence: Chinese (pre-service) teachers' perspectives, (in:) King J., Harumi S. (eds.), East Asian perspectives on silence in English language education. Bristol: Multilingual Matters, pp. 105–122.
- King J. (2013), Silence in the second language classroom. New York: Palgrave Macmillan.
- Korol A.D., (2022), Silence as a pedagogical issue: Heuristic perspectives. "Journal of Silence Studies in Education", Vol.1, No 2, pp. 12–22.
- Kowalchuk A. et al. (2022), Anxiety disorders in children and adolescents. "American Family Physician", Vol. 106, No 6, pp. 657–664.
- Krzyżak A., Michalik M. (2020), *Poza słowami Marcela Marceau koncepcja milczenia.* "Przestrzenie Teorii", No 33, pp. 85–101.
- Kung M. et al. (2024), Neurological and Neuroimaging Implications of COVID-19 in the Pediatric Population. "Journal of Pediatric Neuropsychology", No 10, p. 5–19.
- "LancsBox." Version 6.0, Lancaster University, 21 June 2021, http://corpora.lancs.ac.uk/lancsbox/download.php.
- "LancsBox." Version X, Lancaster University, http://corpora.lancs.ac.uk/lancsbox/download.php.
- Larsen-Freeman D., Long M.H. (2014), *An introduction to secondlanguage acquisition research*. New York: Routledge.
- Lee K., Sriraman B. (2013), An Eastern learning paradox: Paradoxes in two Korean mathematics teachers' pedagogy of silence in the classroom. "Interchange", No 43, pp. 147–166.
- Lees H.E. (2012), Silence in schools. Stoke on Trent: Trentham.
- Lees H.E. (2016), Choosing silence for equality in and through schooling. "Forum", No 58, pp. 399–406.
- Lees H.E. (2022), *Solitude and schooling*, (in:) Stern J. et al. (eds.), The Bloomsbury Handbook of Solitude, Silence, and Loneliness, Great Britain: Bloomsbury, pp. 34–45.
- Lemak A. (2012), *Silence, intercultural conversation, and miscommunication*. MA thesis, University of Toronto, TSpace.
- Li Y. et al. (2008), Overweight is associated with decreased cognitive functioning among school-age children and adolescents. "Obesity", Vol. 16, No 8, pp. 1809–1815.

- Loades M.E. et al. (2020), Rapid systematic review: The impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19. "Journal of the American Academy of Child & Adolescent Psychiatry", Vol.59, No 11, pp. 1218–1239.
- Loewen S., Sato M. (eds.) (2017), *The Routledge handbook of instructed second language acquisition.* New York: Routledge.
- Lopez-Leon S. et al. (2022), Long-COVID in children and adolescents: A systematic review and meta-analyses. "Scientific Reports", Vol.12, No 1, p. 9950.
- Losey K.M. (1997), Listen to the silences: Mexican American interaction in the composition classroom and the community. Norwood, New Jersey: Ablex Publishing Company.
- MacIntyre P.D., Legatto J.J. (2011), A Dynamic system approach to willingness to communicate: Developing an idiodynamic method to capture rapidly changing affect. "Applied Linguistics", Vol. 32, No 2, pp. 149–171.
- Maher K., King J. (2020), Observing anxiety in the foreign language classroom: Student silence and nonverbal cues. "Journal for the Psychology of Language Learning", No 2, pp. 116–141.
- Mazzei L.A. (2011), *Desiring silence: Gender, race and pedagogy in education*. "British Educational Research Journal", Vol. 37, No 4, pp. 657–669.
- McAuliffe P., Brassard M.R., Fallon B. (2008), *Memory and executive functions in adolescents with posttreatment Lyme Disease*. "Applied Neuropsychology", Vol. 15, No 3, pp. 208–219.
- Mercer S., Williams M. (eds.) (2014), *Multiple perspectives on the self in SLA*. Bristol: Multilingual Matters.
- Mulligan C. (2005), No English educational reforms will be effective unless Japanese English teachers can and will speak English in the classroom. "The Language Teacher", Vol. 29, No 5, pp. 33–35.
- Nessler N. (2018), The speaking silence: A qualitative study of how Swedish teachers meet and handle the challenges of speaking anxiety among their students in English language education. Linnaeus University, Independent thesis, Teacher Education Programme. DiVA Portal, https://www.divaportal.org/smash/record.jsf?pid=diva2%3A1218951.
- Nicole Z., Marta G-L. (2022), *The Routledge handbook of second language acquisition and technology.* New York: Routledge.
- Olearczyk T. (2022), Creativity, concentration, and silence, (in:) Stern J. et al. (eds.), The Bloomsbury handbook of solitude, silence, and loneliness. Great Britain: Bloomsbury, pp. 162–173.
- Olearczyk T. (2016), *Cisza w edukacji szkolnej*. Kraków: Krakowska Akademia im. Andrzeja Frycza Modrzewskiego.
- Ollin R. (2008), Silent pedagogy and rethinking classroom practice: Structuring teaching through silence rather than talk." Cambridge Journal of Education," Vol. 38, No 2, pp. 265–280.
- Pawlak M., Mystkowska-Wiertelak A. (2015), *Investigating the dynamic nature of L2 willingness to communicate*. "System", Vol. 50, No 2, pp. 1–9.

- Peng J-E. (2020), Willing silence and silent willingness to communicate (WTC) in the Chinese EFL classroom: A dynamic systems perspective, (in:) King J., Harumi S. (eds.), East Asian perspectives on silence in English language education. Bristol: Multilingual Matters, pp. 143–165.
- Piske T., Young-Scholten M. (2008), *Input matters in SLA*. Bristol: Multilingual Matters.
- Premraj L. et al. (2022), Mid and long-term neurological and neuropsychiatric manifestations of post-COVID-19 syndrome: A meta-analysis. "Journal of the Neurological Sciences", No 434, p. 120162.
- Pytash K.E. (2013), Using YA literature to help preservice teachers deal with bullying and suicide. "Journal Adolescent & Adult Literacy", Vol. 56, No 6, pp. 470–479.
- Reder L.M. (1987), *Strategy-selection in question-answering*. Carnegie-Mellon University, Pittsburgh, Dept. of Psychology.
- Ritchie W.C., Bhatia T.K. (eds.) (2009), *The new handbook of second language acquisition*. Bingley, UK: Emerald.
- Robinson P., Ellis N.C. (eds.) (2008), *Handbook of cognitive linguistics and second language acquisition*. New York: Routledge.
- Saville-Troike M., Barto K. (2017), *Introducing second language acquisition*. 3<sup>rd</sup> ed. Cambridge: Cambridge University Press.
- Schwieter J.W. (ed.) (2013), *Innovative research and practices in second language acquisition and bilingualism.* Vol. 38. Amsterdam: John Benjamins.
- Smith H.A. (1995), Nonverbal teacher behavior, (in:) Anderson L.W. (ed.), International Encyclopedia of Teaching and Teacher Education, 2<sup>nd</sup> ed., Pergamon, pp. 274–278.
- Smith L., King J. (2018), Silence in the foreign language classroom: The emotional challenges for L2 teachers, (in:) Martinez Agudo J. (ed.), Emotions in Second Language Teaching, pp. 327–346.
- Sola T., Sola, F.M., Jehkonen M. (2024), *The effects of type 2 diabetes on cognitive performance: A Review of Reviews*. "International Journal of Behavioral Medicine".
- Su F., Wood M., Tribe R. (2023), 'Dare to be silent': Re-conceptualising silence as a positive pedagogical approach in schools. "Research in Education", Vol.116, No 1, pp. 29–42.
- Taguchi N. (ed.) (2019), *The Routledge handbook of second language acquisition and pragmatics.* New York: Routledge.
- Tannen D. (1985), Silence: Anything but, (in:) Tannen D., Saville-TroikaM. (eds.), Perspectives on Silence. Norwood NJ: Ablex, pp. 93–111.
- Tomlinson B. (ed.) (2016), SLA materials and research development for language learning. New York: Routledge.
- Vliet N.A. van et al. (2012), Association of thyroid dysfunction with cognitive function: An individual participant data analysis. "JAMA Internal Medicine", Vol. 181, No 11, pp. 1440–1450.
- Yang F.N. et al. (2020), Low cholesterol level linked to reduced semantic fluency performance and reduced Gray matter volume in the medial temporal lobe. "Frontiers in Aging Neuroscience", No 12, Article 57.

- Wiśniewska D. (2012), Czy milczenie jest złotem? Percepcja ciszy i milczenia na zajęciach z praktycznej znajomości języka angielskiego. "Neofilolog", Vol. 38, No 1, pp. 61–76.
- Wong Y-L.R. (2013), *Returning to silence, connecting to wholeness: Contemplative pedagogy for critical social work education.* "Journal of Religion & Spirituality in Social Work: Social Thought", Vol. 32, No 3, pp. 269–285.
- World Economic Forum (2012), *The global risks report 2021*. 16th ed., World Economic Forum.
- World Health Organization (2020), Constitution of the World Health Organization. 49<sup>th</sup> ed., Geneva, World Health Organization, https://apps.who.int/gb/bd/pdf\_files/BD\_49th-en.pdf. Accessed 19 Feb. 2024.
- World Health Organization (2024), *One in six school-aged children experiences cyberbullying, Finds New WHO Europe Study*. "World Health Organization", 27 Mar, www. who.int/europe/news/item/27-03-2024-one-in-six-school-aged-children-experiences-cyberbullying—finds-new-who-europe-study. Accessed 1 Apr. 2024.
- Zembylas M., Michaelides P. (2004), *The sound of silence in pedagogy.* "Educational Theory", Vol. 54, No 2, pp. 193–210.

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