Is what we understand
and imagine what we look for?
The teachers' conceptualisation of textual
coherence and its implications
for classroom writing assessment

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Abstract

For over four decades, coherence has intrigued researchers in text linguistics and applied linguistics, particularly in texts written by non-native speakers. However, insights into teachers' understanding of this concept remain underexplored. This study aimed to identify foreign language teachers' metaphorical conceptualisations of textual coherence and explore the implications for classroom writing assessment, based on the evaluation of essays written in Croatian, English, German, French, and Hungarian as modern foreign languages at the upper secondary and higher education levels. The participants included 17 secondary school teachers and 26 university lecturers. A mixed-method approach was used in this study. The findings showed that teachers' views on coherence were shaped by their professional knowledge, experience, and assessment practices. Metaphors and the writing assessment seemed to be mirroring each other, highlighting the importance of feedback on conceptualisations of coherence and raising awareness of types of coherence among teachers. The use of precisely predetermined and agreed descriptors could result in achieving greater objectivity during classroom assessment in the long run.

Keywords: textual coherence; conceptualisation; writing assessment; foreign language teachers.

1. Introduction

The present study investigates how foreign language teachers perceive and define textual coherence and the impact it might have on classroom writing assessment. It explores how textual coherence was defined and conceptualised by teachers of five foreign languages and includes the qualitative analy-

sis of semi-structured interviews with 17 secondary school teachers and 26 university lecturers. This small-scale study was conducted as a part of the research project *KohPiTekst* (lP-2016-06-5736, *Textual coherence in foreign language writing: Croatian, German, English, French, and Hungarian in comparison*).[1] The *KohPiTekst* project[2] focused on writing argumentative essays as a simple structured written form of a text. There had been no previous pilot-study before the one we report on in this paper.

For more than four decades, in the fields of text linguistics and applied linguistics coherence has intrigued researchers as an important attribute of foreign language texts written by non-native speakers (e.g. Bamberg, 1983 and 1984; Carrell, 1982; Connor, 1984 and 1996; Grabe & Kaplan, 1996; Hyland, 2004; Knoch & Sitajalabhorn, 2013; Leki, 1992; Sanders & Spooren, 2001; Witte & Faigley, 1981). While most of this body of research was dedicated to students' understanding and application of linguistic coherence, what is still needed is an insight into the teachers' understanding of this concept because the success of the teaching and assessment processes depends to a high degree on the clarity of the structure their concept of coherence has.

The idea of using metaphors to gain a deeper understanding of coherence in this study emerged from examining debates on defining coherence, which highlighted various perceptions and interpretations among theorists and practitioners. This idea was further influenced by a review of literature on assessing the quality of texts by non-native writers, which revealed differing criteria and descriptors for evaluating coherence, as well as by discussions among researchers within the *KohPiTekst* project. Metaphorical conceptualisations were considered necessary because the concept of coherence is abstract, or even "fuzzy" (Lee, 2002: 135). The fundamental concept of metaphorical mapping involves linking concrete domains, used as source domains, to abstract domains as target areas. Previous research by Fredua-Kwuateng (2015), although in the fields of mathematics, established the premise that prospective teachers explain abstract terms in their own subjective way "that makes sense to them" (2015: 77), that could have implications on teaching and learning. The more recent study of the teachers' understanding of the English as a foreign language writing skill by means of describing it through metaphors stated that "the use of metaphor in qualitative research allows the researcher to analyse the phenomena from a creative perspective"(Ozturk, 2022: 39).

In light of the foregoing, it is assumed in this study that the foreign language teachers' metaphorical conceptualisations of the term "textual coherence" could affect not only the content and their teaching strategies (what and how they teach), but also the classroom assessment, which could guide and shape the quality of the students' writing in the long run. Consequently, the purpose of this study was to shed some light on the intricate world of teachers' inner sets of knowledge, coherence concepts, and classroom writing assessment process and criteria.

The results of the interview analysis are briefly outlined in the following section in order to link the theoretical background to the teachers' conceptualisation and the implications for the classroom assessment of writing. The first part of the research examines the teachers' knowledge by analysing their definitions of coherence. The second part considers the metaphorical descriptions of the term "textual coherence." The final part lists the teachers' assessment criteria, analyses qualitatively their oral interpretations and explains their evaluation procedures, and, finally, compares the variables. The assessment also included feedback as an essential element that could improve the quality of foreign language writing.

2. Theoretical background

Three areas of interest were explored in the study, namely textual coherence in foreign language writing, its metaphorical conceptualisation, and classroom assessment including feedback, respectively.

Coherence as a significant feature of foreign language texts written by non-native speakers (NNS) continues to be a research subject in the fields of text linguistics and applied linguistics. According to De Beaugrande and Dressler (1981: 11), it is one of the seven features of a written discourse: cohesion, coherence, intentionality, acceptability, informativity situationality, and intertextuality. Coherence is a complex construction and depends on the writer's and the reader's mutual understanding of the meaningful connection between words, sentences, and paragraphs in the text, as Bamberg elaborated more than 30 years ago (1983: 420). It is multi-faceted because it includes the ability of the writer to organize a well-structured and logically sequenced text in such a way that it will enable the reader to fluently follow the author's ideas and understand what the writer wanted to express. An unambiguous definition of textual coherence has not yet been drawn up, as suggested by Pon and Bagarić Medve (2017). As Walker (2015: 32) points out: "Coherence is considered a difficult concept to understand and express, and this has led to some rather vague explanations." The same author explains further: "Hence, cohesion is only support for coherence, and coherence is 'something' created by readers while reading a text, this 'something'

being a logical interpretation to create a meaningful and unified whole" (ibid.). This definition implies constant interaction between the writer, the text, and the reader in the process of creating the meaning. It requires the writer's and the reader's intentions, expectations, as well as background knowledge and the reader's knowledge of the language in which the text is written. According to Brinker (2001), coherence should include grammatical, pragmatic, cognitive and thematic aspects. Adamzik (2004: 58) described coherence as a "regulative principle" that regulates both the production and the reception of the text. Lee (2002: 139) states that the reader's concept of coherence "may be different in their own language". The Common European Framework of Reference for Language, or CEFR (2001: 140) defines coherence together with cohesion in the following way:

Coherence and cohesion refer to the way in which the separate elements of a text are interwoven into a coherent whole by exploiting linguistic devices such as referencing, substitution, ellipsis and other forms of textual cohesion, plus logical and temporal connectors and other forms of discourse markers. Both cohesion and coherence operate at the level of the sentence/utterance and at the level of the complete text.

Since the *KohPiTekst Project* included the analysis of coherence in the written texts of NNSs in different languages, for the purpose of this study coherence has been identified in congruence with the assessors' manual created within the project. As listed in the *The Assessors' Manual for the Written Production of Students* (2017: 8-9), "the coherence criterion addresses the following question: How is the content of the text organised and is the sequence of thoughts and sentences logical"? This criterion distinguishes between global (A) and local (B) coherence. Global coherence operates at the macro level as the thematic integrity of the whole text. Local coherence functions at the micro level as the semantic connections of the individual parts that constitute the text.

The second issue, conceptualisation, involves language, knowledge, beliefs, and visualisation in the process of forming a concept or idea of something. Metaphors, as stated by Lakoff (1993: 207), "transcend language" in that they "are not only a matter of language, but of thought and reason" (Lakoff, 1993: 208). According to Lakoff and Johnson (1980: 5), metaphors are "understanding and experiencing one kind of phenomenon in terms of another". The same authors also explain that "every experience takes place within a vast background of cultural presuppositions" (ibid.: 57). The categorisation of conceptual metaphors into different image-schemas suggested by Lakoff and Johnson (1980) is still a very popular research material today. Through the use of visual imagery and the use of language to explain these visuals, this categorisation allows for a more in-depth understanding of abstract subjects. The proposed categorization of metaphors was studied,

adopted and adapted to the needs of this study in order to be able to qualitatively examine the possible connections of the domains used to conceptualise coherence with the features of textual coherence. It should be noted that this research did not intend to delve deeper into the issue of contemporary theory of metaphor, but only to determine globally in what ways teachers imagine coherence, and what implications this image might have on assessment. The literature overview did not find any relevant research about foreign language teachers' metaphorical conceptualisations of text properties such as coherence. This study could relate to Fredua-Kwarteng's (2015) article on mathematics conceptualisation and its implications for teaching mathematics, as well as to more recent study of metaphor for writing skill in English as a foreign language (EFL) contexts (Ozturk, 2022).

It has been observed by the authors of this study that the type of the metaphorical domains used in describing and understanding coherence might contribute to teacher's feedback to students' writing assignments. Therefore, the third issue in the study was classroom assessment. There are numerous studies and books related to classroom assessment in foreign language teaching (e.g. Brown, 1998; Cohen, 1994; Genesee & Upshur, 1996). Classroom assessment is a very complex term to explain, as it includes, among other things, formative and summative assessment, holistic or analytic criteria, as well as peer-assessment and self-assessment to provide feedback to students on their acquired knowledge. It also ensures ideas for future teaching and learning modifications. One of the common denominators could be teachers who frequently apply certain criteria and methods of evaluation to check what they have usually taught themselves. According to Cheng and Fox (2017: 2), assessment activities "include both the classroom tests and daily assessments that we teachers use in our classroom, and the large-scale tests that our students take, such as the Test of English as a Foreign Language (TOEFL) and the International English Language Testing System (IELTS)" or standardised internationally recognized language proficiency tests, such as Das Deutsche Sprachdiplom (DSD) in German or The Diplôme d'études en langue française (DELF) in French. In the modern European educational systems oriented towards the fulfilment of pre-planned learning outcomes, assessment criteria play an important part because they define the degree of achievement of those outcomes (Cedefop, 2016). Good classroom criteria could help students of foreign languages to develop their communicative competence, i.e. to achieve the learning outcomes. It could also be used by teachers to plan their teaching curriculum and to provide useful qualitative or quantitative feedback. Classroom assessment could be influenced by the teachers' knowledge of assessment, their understanding of the curriculum content, and their previous teaching experience. The term "classroom assessment" in this study implied the procedures and criteria that teachers of foreign languages use in the classroom, as opposed to standard-

ised tests or secondary school leaving exams. Being an essential element of the assessment, teacher's feedback improves student learning and performance. Research interest in the feedback in second language writing especially has risen significantly over the past decades. As an illustration of the increase in interest, a review of 37 empirical studies provided by Li and De Luca (2014) could be mentioned. Carless and Boud define feedback "as a process through which learners make sense of information from various sources and use it to enhance their work or learning strategies" (2018: 1). Studies such as those described by McGrath et al. (2011) or Underwood and Tregidgo (2006) show that the effectiveness of assessment and feedback do make an impact on students' foreign language development. These studies have discussed the need to develop teacher and student feedback literacy. Teacher feedback literacy is defined as "the knowledge, expertise and dispositions to design feedback processes in ways that enable students' uptake of feedback and seed the development of student literacy" by Carless and Winstone (2020: 2). However, recent empirical research (such as e.g. Yu et al., 2021) warns of the potential negative effects of feedback, such as: "lack of specification, low quality, superficial feedback, unclear feedback criteria, inconsistent feedback, one-way communication, and unclosed loop" (2021: 1). This is why it is important to think about the ways of ensuring effective feedback when creating assessment criteria. Another interesting study focuses on written feedback that "can be anything that teachers evaluate on students' texts to make them better" (Bakiner, 2021: 2687), for example scales, points or grades, which can be either form-focused or language-focused.

3. The aim and the research questions

The main aim of this study was to investigate foreign language teachers' conceptualisation of textual coherence and its implications for the classroom writing assessment, based on the evaluation of essays written in Croatian, English, German, French, and Hungarian as modern foreign languages at the upper secondary and higher education levels.

This study addressed the following three research questions:

1) How do the teachers from Croatia, France, and Hungary define textual coherence in foreign language writing in Croatian, English, German, French and Hungarian language?
2) How do teachers metaphoricaly describe coherence?
3) How do teachers assess writing (what criteria do they use and what grades do they give)?

The research covered the following areas: the knowledge about coherence features, the metaphorical conceptualisation of textual coherence, as well as teaching and assessment practice concerning coherence.

4. Methods

A mixed-method approach that consisted of a qualitative analysis, together with basic quantitative procedures of descriptive statistics based on data collected by using several instruments were used in this empirical research.

4.1. *Participants*

The sample technique used in this study was purposive sampling. The sample of 43 teachers (N = 43) consisted of teachers and lecturers of Croatian, English, German, French, and Hungarian as a second and/or foreign language (L2) from Croatia, France and Hungary who had taught writing essays in a foreign language to students in the last two grades of secondary school (N=17) and/or to undergraduate students at the university level (N=26) (see Table 1).

Table 1: Teachers according to L2* they teach

Language	Frequency	Percentage
English	11	25.60
German	12	27.90
Hungarian	9	20.90
French	6	14.00
Croatian	5	11.60
Total	43	100.00

(L2 = second and/or foreign language)

If the representation of foreign languages in Croatian educational institutions is taken into consideration, the distribution of participants teaching L2 was not correspondent. The two most commonly taught foreign languages in Croatia in primary and secondary schools, as well as at universities, are English and German. French as a L2 is taught in Croatia in some primary and secondary schools, and at some universities. French is also taught as L2 in specialized centres or courses for foreign students in France. Hungarian is taught mainly as the language of the Hungarian minority in Croatia, and it could also be studied at the University of Osijek. In Croatia and Hungary, Croatian and Hungarian as L2 are taught in specialized centres or courses for foreign students.

The majority of participants were between the ages of 35-39 (23%), 45-49 (21%), and 55+ (27%), with an average of 5-9 (26%), 20-24 (21%), and 20+ (21%) years of experience in teaching. The continuous professional development of participants was also found important. Primary and secondary school teachers in Croatia have the right and the obligation to undergo continuous professional development on a regular basis at least three times a year on a county level or at least once in two years on the country level. Since the introduction of the secondary school leaving exam (or The State Matura exam) in 2009–2010, many seminars and workshops covering the thematic area of language testing and assessment criteria for writing have been organized and 16 secondary school teachers (94%) have taken part in teacher training. As for the university level, 8 participants (42%) have often, and 6 participants (31%) sometimes taken part in seminars or workshops. Gender was not considered relevant for this study (35 females, 8 males). Participants in this research taught students at different ages and levels of communicative competence. Teachers in secondary schools taught students aged 15–18 between A2 and B2 levels, while university teachers taught students aged 19 and between B2 and C1 levels according to the CEFR. Teachers of the Hungarian and Croatian language taught university-level students between the A1 and B2 levels of communicative competence.

4.2. *Instruments*

The first instrument was an open set of predetermined thematically grouped main questions, i.e. a semi-structured interview schedule. The purpose of the study was thoroughly explained to all respondents, and they signed a written consent and agreed to participate in the study. The open-ended questions were grouped according to the following seven topics:

1) Warm up: sociodemographic data with questions about their age, work experience, foreign languages they teach and the information about their previous participation in seminars/workshops for foreign language teachers,

2) The teachers' opinions about their students' writing skills,

3) The assessment of writing with questions such as: "How do you assess your students' writing?", "Do you use any criteria when rating the quality of their texts,"

4) Textual coherence: the definition and metaphorical descriptions of coherence in writing. In this part of the interview, the teachers were asked explicitly to use a metaphor to describe coherence: "Please finish the sentence: Coherence is like…,"

5) Coherence breaks: the frequent causes of coherence break in the students' written texts,

6) Teaching coherence: description of teaching strategies and tasks,

7) Closing remarks.

There were no more than three questions per topic. One part of the interview encompassed a think-aloud protocol. Namely, the participants had to read one previously selected student's essay written in either Croatian, English, German, French, or Hungarian and comment on its coherence. They also had to explain which grade for coherence they would assign this text on a scale from 1 (not sufficient) to 5 (excellent), and why. The objectivity and validity of the interview were ensured using the same set of questions for all participants. All the interviews were audio-recorded and transcribed.

The second instrument comprised foreign language students' texts written in Croatian, English, German, French, and Hungarian, which together formed a large text corpus sampled for the project. Students at B1-B2 level on the CEFR had been required to produce a 150 to 230-word composition in which they were to convey both points of view – advantages and disadvantages on the topic 'Life in the City,' to express their opinion, and provide supporting arguments. It should be noted that *The Assessors' Manual for the Written Production of Students* (B1-B2 level of language proficiency according to the CEFR) was developed in five foreign languages within the project. They encompassed the following criteria: Text Type, Cohesion, Coherence, Task Completion, Vocabulary, and Grammar. One composition per language was chosen from the *KohPiTekst* corpus, which had been read and initially graded by the project team members by using the criteria from the assessors' manual. The coherence of all the chosen texts was graded 4 (very good). All other criteria, i.e., Text Type, Cohesion, Task Completion, Vocabulary, and Grammar, were graded 5 (excellent).

The third instrument was a classification of image-schemas suggested by Lakoff (1987: 271–278) and Johnson (1987: 126). Image-schemas have been shown to lie at the basis of numerous metaphorical constructions (cf. Lakoff & Johnson, 1980; Lakoff, 1987). The schemas that could correspond to the properties of coherence, according to the characteristics of global and/or local textual coherence from *The Assessors' Manual for the Written Production of Students* as mentioned previously in this text, have been extracted from this extensive list. Those were CONTAINER, CENTRE-PERIPHERY, LINK, PART-WHOLE, and SOURCE-PART-GOAL or PATHS schema.

4.3. *Data collection and analysis*

The procedures for data gathering and analysis were as follows: the interviews were conducted in various towns across Croatia, Hungary, and France. Each interview was about 25 minutes long and was audio recorded before being transcribed. This study's final corpus of interviews included 43 Word documents that were password-protected, and were archived in the

KohPiTekst data archive for research purposes only. Certain participants' quotes were used in this paper, but without providing information that would reveal the participant's identity.

4.4. *Data analysis procedure*

The quantitative descriptive analysis of sociodemographic data was conducted by the *IBM SPSS Statistics 20 Programme.* All interviews were analysed qualitatively using the MAXQDA Analytics Pro 2018 (Release 18.2.0) programme, which included various analytical tools and the ability to compare documents simultaneously. The software allowed both qualitative and quantitative analysis of the interview transcripts.

The parent and sub-codes were extracted from the transcript during multiple readings. The narratives of the participants were organised into themes and categories. The thematic categories were used to derive the parent (main) codes. Each parent code was made up of many sub-codes that were grouped together based on thematic and/or semantic criteria and then sorted in descending order by frequency across all transcripts. *MAXQDA* was also used for quantitative analysis of interview data. The percentages were calculated based on the number of statements because some interviewees mentioned more than one item, image, or idea.

The metaphors were comprehended and analysed in terms of the domains of time, location, motion, and direction of travel over multiple readings of the transcribed interviews in order to determine the most appropriate patterns by using the MIP method (Pragglejaz, 2007). After a thorough qualitative analysis, the descriptions of coherence were divided into two image-schemas, according to Lakoff (1987) and Johnson (1987), which were: SOURCE-PATH GOAL and PART-WHOLE schema. The SOURCE-PATH GOAL category refers to the process of moving with a recognisable pattern consisting of typical parts, which are, according to Johnson (1987: 113): "(1) a source, or starting point, (2) a goal, or endpoint; and (3) a sequence of contiguous locations connecting the source with the goal". The PART-WHOLE schema included hierarchical structures and configurations of the parts within a whole (Lakoff, 1987: 273–274). This suggests that the PART-WHOLE schema is needed in order to understand the relationship between the source and the target domains.

5. Results

The obtained results were classified according to the research questions. The first research question was "How do the teachers of Croatian, English, German, French, and Hungarian as foreign languages (from Croatia, France,

and Hungary) define coherence in foreign language writing?" Teachers' definitions were thematically and semantically categorised. The quantitative descriptive analysis of the number of statements (frequency of segments) showed that the concepts of the semantically meaningful text (comprehensibility) and logical connection prevailed (see Table 2).

Table 2: Teachers' definitions of coherence

Definition	Frequency	Percentage
semantically meaningful text	**16**	**38.09**
logical connection	**16**	**38.09**
clarity	3	7.32
unity	2	4.88
cohesion	2	4.88
concordance	1	2.44
fluency	1	2.44
organisation	1	2.44
Total:	42	100.00

The second research question was "Which metaphorical expressions do teachers use to describe coherence? What categories, or image-schemas could be noticed?" The participants were asked explicitly to use the metaphor to describe coherence: "Please finish the sentence: Coherence is like…" The following list of image-schemas was compiled before the first global reading of the interviews: CONTAINER, CENTRE-PERIPHERY, LINK, PART-WHOLE, and SOURCE-PART-GOAL or PATHS schema, because they best corresponded to the properties of coherence. After further careful analyses, the two categories of textual coherence metaphors (PART-WHOLE and SOURCE-PATH-GOAL or PATHS) were extracted and agreed on. The analysis (see Table 3) showed that almost the same number of respondents used metaphors from the categories of PART-WHOLE (18 teachers) and PATHS (16 teachers).

Table 3: Categories of metaphorical descriptions of coherence

Category	Frequency	Percentage
PART-WHOLE	18	41.80
SOURCE-PATH-GOAL	16	37.20
no idea / not said	9	20.90
Total	43	100.00

Within the PART-WHOLE category, the metaphors were: *(a good) organisation, connective tissue of the skeleton,* and the like. Coherence was also:

"… some kind of puzzle that is nicely arranged and forms a recognisable

picture".

"… a series of drops that form, I don't know, that form the sea, some body of water".

"… a red pepper wreath. The question is, what makes a red pepper wreath?

"Peppers or a ribbon? The role of the ribbon is negligible, but without it there would be no red pepper wreath".

For sentences above, the understanding requires the additional activation of some image-schematic structure, suggesting that we conceive of entities as composed of other entities. Moreover, the fruitful interplay of both metaphor and metonymy is required to accurately interpret the meaning of the provided responses. In such an interaction, the metaphor always provides the basic pattern for the conceptual interplay and a metonymy mapping always agrees with the logic of the image-schema at work.

Within the PATHS category, the mentioned metaphors included: *a pleasant walk, something that flows to its goal, telling a story, an uninterrupted dance on ice from start to finish.* According to some teachers, coherence was, for example also:

"… a river, which has its mouth, which has its course, has no rapids to interrupt it, but flows from beginning to its end with its course and flows into another river".

"… telling a story that develops and has a beginning and an end".

Many teachers used elaborate language to additionally explain their metaphorical conceptualisations of coherence.

The third research question was "How do teachers evaluate writing (what criteria do they use and what grades do they give)?" We wanted to know which elements they usually consider during the evaluation of coherence in texts written in different foreign languages We were also interested in their (written) feedback to students. Of the total number of respondents, only 35 participants talked about the assessment. Most participants (77%) reported providing quantitative feedback to students by using rating scales they created themselves based on their prior knowledge or insights gained from professional development, giving points, using their own criteria, or international standardised test criteria (TOEFL, DSD, DELF, Croatian secondary school leaving exams). Some participants mentioned assessing without the rating scales (22%), and only one mentioned giving qualitative written suggestions, as shown in Table 4.

Table 4: Assessing writing

Forms of assessment	Frequency	Percentage
using rating scales	9	25.71
giving points	9	25.71
no rating scales	8	22.86
own criteria	5	14.29
standardised test criteria	3	8.57
writing qualitative suggestions	1	2.86
Total	35	100.00

All interviewed teachers introduced their students to the essay assessment criteria in parallel with practising essay writing during classes. Six of them (2 teachers of English, 3 teachers of German and 1 Teacher of French) explicitly mentioned interacting with students, organising discussion rounds, or writing suggestions for improvement. They also specified the importance of giving feedback to students.

Table 5 shows the grades that were given for coherence of essays (one essay per a foreign language) extracted from the *KohPiTekst* corpus for the purpose of this study according to the foreign language.

Table 5: The grades according to the language

Language	Mean	SD
German	4.33	0.778
English	3.64	1.027
Croatian	3.50	0.837
French	3.20	1.304
Hungarian	3.11	0.601

As shown in the Table 5, the essay in German received the highest grade, followed by English, Croatian and French. During the interview, the participants were also asked to elaborate and explain the reasons for giving the essay a certain grade for coherence. They mentioned various text features, some of which were not related to coherence. The frequency of specific answers was studied, i.e. how many times the respondents stated something: *(elaborated) structure (introduction, main part, conclusion)* (33); *argumentation* (19); *intelligibility and clarity of the message* (15); *cohesive devices* (14); *fluency* (12); *the logical sequence of ideas* (11); a *meaningful connection* (11); *interruptions* (8); *grammar* (7); *the use of verb tenses* (6); *expressing an opinion* (5); *exemplification* (5); *errors* (4); *vocabulary (use)* (4); *graphic layout* (3); *style* (2); *topic* (2); *the amount of text* (1); *spelling* (1); *thesis* (1); *interference of another language* (1).

After individual analysis, the two categories of textual coherence meta-phors (PART-WHOLE and PATHS), the type of coherence referred to during the think-aloud protocol (global and/or local) and the grades for coherence in general were quantitatively compared (Table 6).

Table 6: Comparison of image-schemas, the type of coherence and grades

Image-schema / Teachers		Coherence*			Grade
		A	**B**	**AB**	
PART-WHOLE	18	8	7	3	3.6
PATHS	16	4	9	3	3.8
No idea	9	-	-	-	-
Total	34	12	16	6	3.4

*Coherence: A = global coherence, B = local coherence, AB = global and local coherence

The qualitative comparison showed the following results: 9 of 43 teachers could not metaphorically describe coherence during the interview; most teachers (18 out of 34) imagined coherence within the PART-WHOLE schema; 8 of 18 teachers, who metaphorically described coherence within the PART-WHOLE schema, focused on global coherence; 9 of 16 teachers, who meta-phorically described coherence within the SOURCE-PATH-GOAL schema, paid attention to local coherence. Teachers whose metaphorical descriptions were listed within the SOURCE-PATH-GOAL category gave an overall higher grade (3.8) than those whose descriptions belonged to the PART-WHOLE category (3.6). Overall, teachers assessed the coherence of the essays with an average grade of 3.4, irrespective of the language in which they were written.

6. Discussion

This discussion follows the research questions posed earlier in this study. As shown in Table 2, an equal percentage of teachers (38%) of Croatian, English, German, French, and Hungarian as foreign languages (from Croatia, France, and Hungary) defined textual coherence in foreign language writing in terms of the semantically meaningful text (comprehensibility) and logical connection. They all described coherence in accordance with their profes-sional knowledge and experience in teaching. However, they did not pro-vide definitions based on the linguistic literature. In particular, they did not entirely distinguish between global and local coherence. Their past educa-tion and continuous professional development, their experience with stand-ardised external tests, the (pre) knowledge of their students, the level at which they teach, and the language itself most likely influenced their knowledge and understanding of coherence. The teachers were asked whether they participated in their continuous professional development.

However, they were not asked if they had ever had some kind of explicit training on cohesion and coherence. The authors of this study were aware that only the secondary school teachers of English, German and French were taught on the criteria for Croatian secondary school leaving exam essays during their obligatory training. All of them mentioned that they had attended seminars and workshops, but did not explicitly discuss training on coherence.

The metaphorical descriptions of coherence cited by the interviewed teachers were classified into two categories: PART-WHOLE and PATHS. Experiences that affected their image were very personal and individual. It is worth noting that the Hungarian professors included specific cultural features like making ornaments or a red pepper wreath. It should be noted that there were many overlaps in the interpretation of metaphors and a lot of reconsideration during categorisation. For example, the metaphor of harmony in the music domain could be categorized as a CONTAINER schema because it contains certain tones. The authors of this research imagined the harmony of vibrations as the waves of sound that emanate from an instrument, so they classified this metaphor in the domain of CENTRE-PERIPHERY image-schema. In the instance of the metaphor which refers to the ribbon in the pepper wreath, it might also be categorized in the LINK schema. It is an image-schema that consists of two or more objects or elements that share some features and that are connected physically, temporally, or metaphorically, and the bond between them. Those objects could be connected physically or abstractly (Johnson, 1987: 117–119). Nevertheless, it seemed more that all elements equally created a larger whole. The image of the rainbow could also be classified within the PART-WHOLE domain, and since it does not involve the movement process, it could not be classified in the SOURCE-PATH-GOAL (or PATHS) domain. Very often, the rainbow is viewed as a semicircle, or a bridge that connects two points. Therefore, it could also be seen as belonging to the LINK schema. However, the interviewed teacher explained the metaphorical image of the rainbow in the following way: "It's all connected and diverse from the inside out." If we think of the rainbow from the viewpoint of physics and optics, it is fundamentally a dispersion of white light that refracts and spreads in different colours from the centre outwards. A pluralistic approach to metaphor has prevailed in recent literature, supporting alternative interpretations of the source and target domains. Metaphors are linked to nature, a culture, and a specific place within that culture, as well as their objective and subjective meanings and interpretations. The borders between image-schemas aren't drawn clearly enough. It is possible that mathematicians, linguists, and musicians will understand the same metaphor in various ways.

Many factors appeared to have impact on metaphorical descriptions of textual coherence. One of these, as suggested by an interviewed teacher of

French, could be the tradition of teaching and studying writing in a foreign language. The specific features of a foreign language and the cultural contexts that underpin that language might also play a certain role in forming the metaphor. Other influences were probably included, such as previous assessment experiences from the secondary school leaving exams or some other objective standardised tests. At the core of every metaphor, however, there was actually a highly subjective representation of what the participants liked to see or do in everyday life.

Due to the fact that the only two pertinent studies on metaphorical conceptualization and its influence on educators, to our knowledge, focused on writing skill in English as a foreign language (Ozturk, 2022) and on mathematics education (Fredua-Kwarteng, 2015), we initially examined how English teachers in Turkey perceive the concept of writing. They employed a wide range of metaphorical expressions, and some of them most commonly: *constructing/building, cooking, doing puzzles, drawing a picture, being an artist, being a painter, being an author, making a cake, creating, knitting, riding a bike, meditation, a factory, space* (2022: 40). The authors of the mentioned study identified "writing as a process" as one of five main categories of the metaphors that EFL teachers used for writing skill (2022: 44). It is interesting to note that some of the metaphorical expressions could be compared with the two categories of metaphorical descriptions of coherence listed in this research: PART-WHOLE and PATHS (see Table 3).

It was also interesting to examine how maths teachers conceptualised the subject they were teaching (Fredua-Kwarteng, 2015). Mathematicians mentioned the following metaphors: *a home with a solid foundation, a ladder to climb, a series of structured steps, a system of skills and knowledge, a subway train system, and a hierarchical subject* (2015: 85). Fredua-Kwarteng sees "[t]he conception of mathematics as a hierarchical, structured, and ordered discipline" (2015: 85). The concepts of mathematics and coherent foreign language written texts are abstract in nature, but they differ from one another.

It should be noted that the entire interview lasted approximately 25 minutes, which means that the time for the coherence evaluation task was rather limited to one or two readings of the text. Teachers' experiences, knowledge of coherence and the level of students' knowledge, and familiarity with the assessment criteria from the external international and national standardised evaluation (TOEFL, DSD, DELF, Croatian secondary school leaving exams) were expressed during the oral analysis and evaluation of students' essays. It should once again be mentioned that there were no elaborate and precisely predetermined and agreed criteria for assessment of coherence.

Already three decades ago, Nespor (1987: 317) claimed that "It has become an accepted idea that teachers' ways of thinking and understanding are vital components of their practice". Could teachers' metaphorical con-

ceptualisations impact how they teach or assess students in the classroom? The impact of prospective teachers' conceptions of mathematics instruction was underlined by Fredua-Kwarteng (2015). His study showed that the ways the teachers conceptualised mathematics might well be mirrored in the ways in which they instructed because the teachers would impart these specificities to students, regardless of whether they suit the student's vision and ability or not. Similarly, the manner in which participants in this study metaphorically characterised or envisioned coherence might be mirrored in their assessment. If they understood coherence primarily in terms of hierarchical structures within the PART-WHOLE category, then they paid more attention to the structure of the text, i.e., global coherence. If coherence was primarily conceptualised and articulated in terms of the process, i.e. PATHS category, then local coherence and the sequence of thoughts received more attention. However, we could not be more specific and could not provide numbers of the participants using PART-WHOLE imagery assessed global coherence more favourably as opposed to the number or percentage of participants who used the PATH image schema and assessed the sequence of thoughts because they were not asked to pay attention to a certain type of coherence. Consequently, that could not be detected during the analysis of transcribed think-aloud protocols from interviews with teachers.

7. Conclusion

The main aim of this study was to identify foreign language teachers' conceptualisations of coherence in written texts and to investigate the implications of those conceptualisations for writing assessments in the classroom. Initially, the definitions of textual coherence were selected from transcribed interviews with 43 teachers of five foreign languages in order to determine their theoretical and professional knowledge. Secondly, their metaphorical explanations were analysed qualitatively and categorized into main categories according to Lakoff and Johnson (1980). Finally, the categories were compared to the type of coherence, grades, and oral descriptions of the evaluation process. The following conclusions were drawn from this qualitative study of transcribed interviews:

- All the participants defined textual coherence based on their professional knowledge and teaching experience. Their definitions were not based on a linguistic theory.
- Teachers' individual metaphorical descriptions and explanations encompassed process, hierarchy, as well as perceptual experiences. Their conceptualisation might be influenced by their professional knowledge, personal classroom experience, assessment practise, and professional

continuous development, as well as their familiarity with international and national standardised language tests.

- Teachers explained their rating decisions by expressing several different text aspects when they were asked to apply their conceptualisations and definitions of coherence to an actual time-limited assessment task. Some of the features belonged to global coherence, while others related to local coherence.

- The metaphors and the assessment seemed to be mirroring each other. However, it was difficult to determine which came first: did the participants' metaphors emerge from their (prior) knowledge of developing writing as skill, evaluation criteria and procedures, or did their metaphors affect their assessment? This might be considered as the limitation of the study, as confirming the reaction path and timing would necessitate a psycholinguistic experiment.

What might be the implications for classroom writing assessment with special attention to coherence? The previously mentioned factors that influenced the teachers' knowledge of coherence could possibly influence the assessment of coherence. Teachers should consider the possibility that the metaphor of textual coherence that personally prevails in their thinking could play a certain role in evaluating and grading texts. It could be either global or local coherence that they usually look for in a text. Therefore, teachers should pay equal attention to both global and local coherence in their classroom assessment practice.

It could be suggested that the mere complexity of textual coherence might actually be presented with more than one image-schema because their combination encompasses the global coherence, i.e. the structure and the building blocks of the text, as well as the local coherence, which implies the sequence of thoughts and ideas.

In parallel with the creation of assessment criteria for coherence, teachers should also consider the impact of the feedback. Firstly, mutual discussions on metaphorical conceptions of coherence and their comparison between students and teachers, indicating the effect of conceptualisation on assessment and providing clear and understandable feedback should be integrated into classroom practice. Secondly, some ways to enhance student feedback literacy could be adopted, for example: technology-enhanced feedback, peer feedback, dialogical feedback, rubric understanding and reflection, as categorized based on the literature review provided by Yu and Liu (2021). Finally, teacher feedback literacy could be targeted through developing partnership approaches to feedback, as suggested by Carless and Winstone (2020).

This research was hampered by the small number and homogeneity of our participants, and this could have affected our results. It is especially important to point out that the interview lasted only about 25 minutes, and

the time for assessing and orally explaining the grading of coherence was even shorter. Respondents were probably unaccustomed to the think-aloud method during their usual assessments of written texts.

More research is needed to examine the metaphorical images of both global and local coherence. Additional research might examine whether teachers could benefit from discussions about more precise metaphorical descriptions of coherence. Using metaphors enables teachers to map coherence as an abstract or complex concept onto familiar ideas. Teachers' awareness of their own use of metaphors for coherence should be raised during their pre-service and in-service teacher training to better understand global and local coherence. Discussions about more than one image-schema that include both local and global coherence could help teachers not to focus exclusively on one subjective image/coherence during the assessment but objectively on both.

What is also necessary in the future is to develop the criteria for the classroom assessment of both global and local coherence, as well as to train foreign language teachers to use these criteria to achieve greater quality of the classroom assessment. It is also necessary to organise targeted training in the field of both global and local coherence of written texts as part of the continuous professional development of teachers of foreign languages. To our knowledge, there has not yet been any systematic in-service teacher training in Croatia on the topic of textual coherence that would thoroughly instruct teachers on the specifics and distinctions between global and local coherence. The issues of objective assessment of coherence with the understanding of its metaphorical conceptualisation could be introduced into the curricula of future teacher formal university education and the teachers' continuous professional development programmes in order to assure the positive impact of feedback. Similar conclusions could be found in a recent empirical research on the challenges of evaluating the textual coherence of written texts in Slovenia (Sokolov, 2022: 287).

The use of elaborate scales and precisely predetermined and agreed descriptors for global and local coherence could result in achieving greater objectivity during classroom assessment.

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