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Lexical Diversity in Early Learning of English as L2

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In this paper the authors discuss L2 lexical diversity in the context of early learning of English as L2. They describe the study they carried out with Croatian early beginners in order to see which levels of lexical diversity they reached after four years of learning and which linguistic and non-linguistic factors lexical diversity interacted with. Their findings indicate that young learners differ in their lexical development and that lexical diversity interacts with the learners' attitudes, motivation and self-concept as well as a number of contextual factors.

1. Defining, measuring and researching lexical diversity

Lexical diversity is defined as a measure of the number of different words used in a text. Authors (e.g. Johanson 2008) stress that it should be distinguished from lexical density, a concept denoting the proportion of lexical items compared to non-lexical items in a text. Although some authors (e.g. Daller/van Hout/Treffers-Daller 2003) consider lexical diversity to be equivalent to lexical richness, others (e.g. Malvern/Richards/Chipere/Durán 2004) disagree: they define lexical richness as a multidimensional concept that lexical diversity is only a part of. Terminological overlapping does not end here: as Yu (2007) notes, terms such as lexical sophistication, vocabulary richness, lexical range and balance, as well as others are used in some studies interchangeably with lexical diversity.

Conceptual and terminological problems connected with lexical diversity have been accompanied with an equal confusion regarding its measurement. Researchers have been trying for some time now to come up with indices of lexical

diversity that could be considered conceptually sound enough and operationally simple enough at the same time. Although the type-token ratio (TTR) has been used most widely to date, it has been criticised for being insensitive to sample size. In an attempt to reduce the effect of this shortcoming some other measures have been designed, one of them being Root TTR developed by Guiraud (1960) (for a more detailed discussion see Daller/Milton/Treffers-Daller 2007; Milton 2009).

Laufer (2003) stresses that lexical diversity is part of lexical competence. As such it can be considered as an indicator of communicative language competence and merits investigation from different perspectives. Investigations of the development of lexical diversity can offer important insights into both L1 and L2 acquisition processes as well as inform second language teaching at both micro and macro levels. There has been little research done, however, that looked into the relationship of lexical diversity and non-linguistic factors. Some empirical studies have shown, though, interesting connections of lexical diversity and such factors as anxiety (Bradac/Konsky/Davis 1976) or socioeconomic status (Sankoff/Lessard 1975; Bradac et al. 1976). Dewaele and Pavlenko (2003) also observed that different levels of lexical diversity can cause differences in evaluations of speakers' communicative competence and assessments of their socioeconomic status.

2. Lexical development in early L2 learning

Acquisition of L2 vocabulary by young language learners takes place as part of several dynamic processes they are undergoing simultaneously: cognitive development, L1 development and L2 development (Szpotowicz 2008). Therefore, in order to understand it fully one needs to treat it as a complex process that implies a number of factors that are not as relevant in L2 learning by more mature learners. As Vygotsky (1962) observes, when learning a new word, its meaning for the child only starts to develop - evolving from a highly primitive to higher types of generalisation. Carter (1987) stresses that young learners' lexical development involves a constant increase in perception of relations between words (syntactic, semantic and conceptual). Verhallen and Schoonen (1993) claim that although children may be familiar with words belonging to different levels, they lack awareness of their hierarchical relations to other words. Cameron (2003) points out that young learners generally stick to words denoting basic level concepts, which they acquire before their superordinates and subordinates.

3. A study of lexical diversity of fourth grade learners of English as L2

3.1 Context

The study described below was carried out as part of the Early Language Learning in Europe (ELLiE) project[1] (www.ellieresearch.eu). This longitudinal study (2006-2010) looked into the processes and outcomes of early L2 learning in seven European countries (Croatia, England, Italy, the Netherlands, Poland, Spain, Sweden). The overall goal was to learn what can realistically be achieved in L2 learning in state schools, where L2 is a compulsory part of the primary curriculum. Using the same instruments, designed by the ELLiE team, the following factors were investigated: affective learner characteristics (attitudes, motivation, self-concept), characteristics of the immediate learning environment and the broader socio-educational context, exposure to L2 outside school, parents' support, socio-economic status and linguistic achievements.

3.2. Aim of the present study

We focused on the following two research questions:

1 – What level of lexical diversity do Croatian young learners of English as L2 reach after four years of learning?

2 – How does their lexical diversity interact with other relevant linguistic and non-linguistic factors?

3.3. Sample

A total of 42 participants, drawn from seven schools, took part in the study. These young learners included two high-ability, two average-ability and two low-ability learners selected from each project school. Thus, the participants formed seven groups, each comprising six learners representing three ability levels. They constituted a subsample of the country cohort's 173 ELLiE participants and were meant to participate in the more intensive parts of the project that required investigations on an individual basis. This subsample was balanced in terms of gender. They were followed from grade one (7 years of age) to end of grade four (10 years of age).

[1] The ELLiE research project was supported by a European Commission grant under the Lifelong Learning Programme, Project n°. 135632-LLP-2007-UK-KA1SCR. An additional British Council grant supported the Croatian research team.

3.4. Instruments

Lexical diversity was measured on the basis of a semi-structured interview in the form of a *guess who* game. It elicited interactive exchange in English. The children were asked to describe people, give locations and ask questions about such items as the people's appearance and their location in a picture. In the first part the interviewer had to ask questions in English in order to guess which person in the picture the learner selected to be guessed about. In this way the interviewer modelled the type of questions that the learner was supposed to ask in the second part of the interview, when the learner had to guess which person in the picture the interviewer had picked out to be guessed about. Reading comprehension was measured by a comic strip in which the text in eight speech bubbles was removed: these were followed by multiple choice items the children had to select the right text from. Learner affective characteristics were measured by means of smiley questionnaires and oral interviews. Data on the learning environment was collected through school and classroom observation as well as by means of teacher and principal interviews. Information on language exposure and parents' support was gathered by means of the parents questionnaire.

More detailed descriptions of the instruments can be found in Enever (2011).

3.5. Procedure

The oral learner interviews and smiley questionnaires eliciting information on learner affective characteristics were administered each year. The oral task was administered at the end of grade four and the young learners' production was audio recorded and later transcribed. School visits were made several times as well as classroom observation and teacher and principal interviews. Parents questionnaires were filled in at home in grade four and returned to the class teacher.

3.6. Results and discussion

The findings presented below are based on data collected over the four years as well as on data gathered through the oral task and parents questionnaire, which were administered in grade four only. Some of the data was used in quantitative analyses, other in designing the illustrative profiles of two learners following the quantitative sections of the results.

3.6.1. Levels of lexical diversity after four years of learning English as L2

Lexical diversity, based on oral production during the interactive *guess who* task, was measured by means of the Guiraud's index: the total number of word types was divided by the square root of the total number of word tokens. The mean value for the 42 learners was 4.15. When results obtained by each of the seven groups were compared, it became clear that there were differences among them (Figure 1).

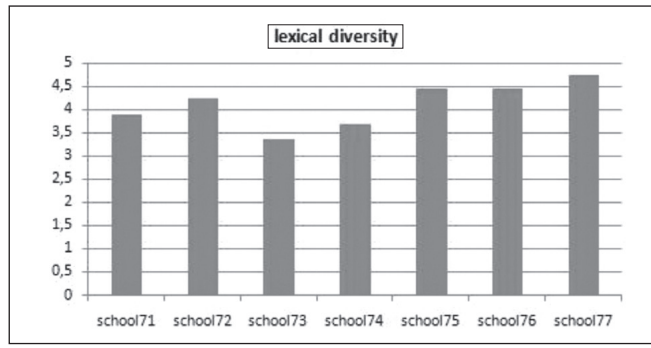

Figure 1: Lexical diversity levels presented by school.

The lowest level was achieved by a village school (school 73), where during the first two years the young learners were taught by an unqualified teacher while in grades three and four they changed two English teachers. The highest levels, on the other hand, were found in the two city schools (schools 76 and 77) and one village school (school 75). The city schools had qualified teachers during all the four years and the young learners were exposed to English extensively out of school too. The village school participants had frequent contacts with native speakers: the school was regularly visited by Americans who helped rebuild the school after the war and the young learners wrote messages to them, gave performances in English during their visits and could talk to them.

3.6.2. Interaction of lexical diversity with other linguistic outcomes

In order to see if and how lexical diversity in our sample of early L2 learners was related to other linguistic factors we correlated Guiraud's indices with their scores on the listening and reading tasks. As Table 1 shows, both listening and reading comprehension performance significantly correlated with the level of lexical diversity in the participants' oral production.

Table 1: Correlation of lexical diversity with listening and reading comprehension

		Oral 2010 point	Listening 2010 Tpoint	Reading 2010 Tpoint
Oral 2010 point	Pearson Correlation	1	,717**	,446**
	Sig. (2-tailed)	,	,000	,007
	N	36	34	35
Listening 2010 Tpoint	Pearson Correlation	,717**	1	,558**
	Sig. (2-tailed)	,000	,	,000
	N	34	161	161
Reading 2010 Tpoint	Pearson Correlation	,446**	,558**	1
	Sig. (2-tailed)	,007	,000	,
	N	35	161	162

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

The correlation was higher with listening than with reading. This is perhaps expectable: in the beginning years of early L2 learning the stress is on oral language and on enjoyable activities that involve listening or speaking. Reading is introduced later and mostly as reinforcement of what has already been dealt with orally. Systematic teaching of reading comprehension as a language skill is usually introduced in later years.

3.6.3. Interaction of lexical diversity with non-linguistic factors

3.6.3.1. Lexical diversity and affective learner characteristics

In this section we will look into interactions of lexical diversity with motivation for learning English, preferences for specific classroom activities, attitudes to teaching and learner self-concept.

As shown in Figure 2, those learners that enjoyed learning English (happy face in the smiley questionnaire) reached higher levels of lexical diversity by the end of grade four than those who were not happy about having to learn English (unhappy face in the smiley questionnaire). Motivation implies putting in more effort into learning and being more on-task during classes, and thus developing lexical competence more successfully.

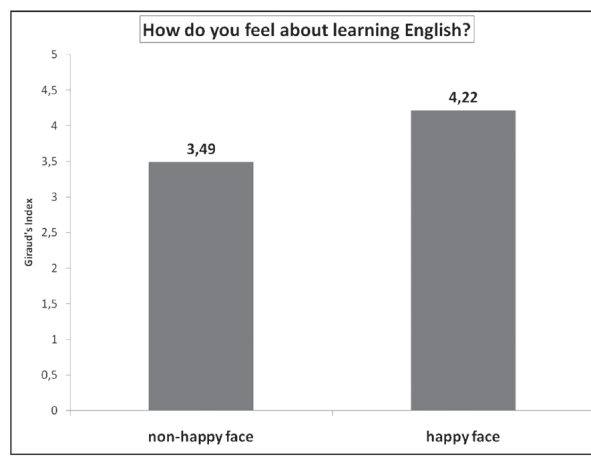

Figure 2: Interaction of lexical diversity with motivation

As Figure 3 shows, the participants' lexical diversity differed also with preferences for different classroom activities. Highest levels were found in those young learners that preferred speaking activities, learning and using new words and expressions, and listening activities. What surfaces here is probably the result of active and enjoyable use of English at the lexical level. These young learners had from the very start perceived L2 learning as learning words in a new language (Szpotowicz/Mihaljevic Djigunovic/Enever 2009). Being able to use the new language in enjoyable speaking activities or to understand oral production very likely created a feeling of achievement and reinforced vocabulary acquisition.

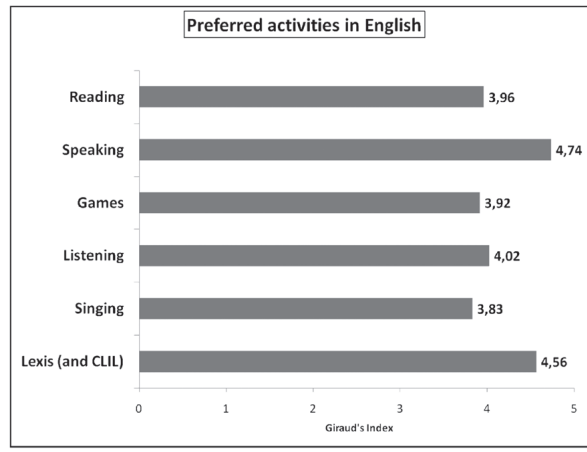

Figure 3: Interaction of lexical diversity with preferred classroom activities

Differences were found with respect to attitudes to L2 teaching and learning too. The young learners were asked in which classroom arrangement they would learn English best: a traditional classroom, one where group work was used, one where children were sitting on the floor in a circle or one where the teacher did not have control over the learners. Since hardly any learner opted for the fourth one, Figure 4 presents interactions of lexical diversity with the first three options only.

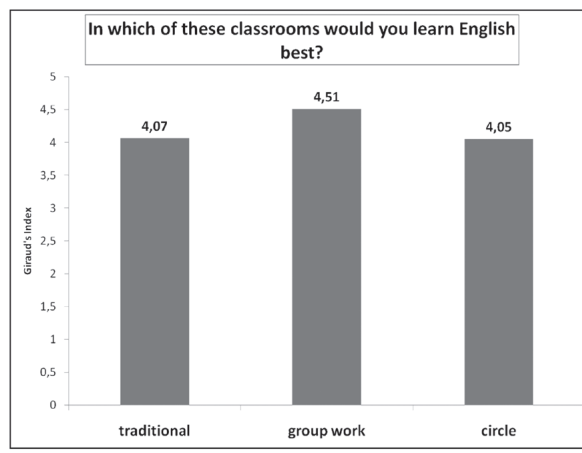

Figure 4: Interaction of lexical diversity with attitudes to L2 teaching and learning

The observed interactions show that those learners that opted for group work arrangement displayed highest lexical diversity. We believe that such participants were highly proactive learners who liked the group work format because it allowed more active use of English, both on the productive and receptive levels, which allowed more opportunities for language practice and, possibly, more and deeper lexical processing.

Self-concept has been shown to play an important role in L2 learning (Mercer 2011) and this surfaced in our study as well (see Figure 5). The participants were asked to compare themselves with their classmates as learners of English and say whether they learn English faster, slower or as fast as their classmates.

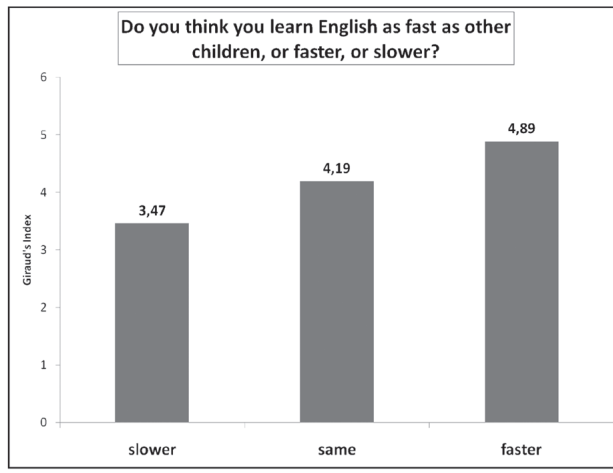

Figure 5: Interaction of lexical diversity with learner self-concept

Higher lexical diversity was connected with a more positive self-concept. Those young learners that thought they were progressing through English faster than others in class reached higher levels of diversity. The lowest levels were characteristic of those children that thought they were worse than others. It is likely that learners with a more positive outlook developed stronger motivation, put in more effort, were more active in learning and, thus, developed more successfully.

3.6.3.2 Lexical diversity and out of school exposure to L2

Information on L2 exposure was collected in two ways: through the oral interview with the learners and through the parents questionnaire. In the interview we asked the participants if they had ever communicated with anyone who did not know Croatian, their L1. As can be seen from Figure 6, there was an interaction of lexical diversity and the experience of meeting a person who spoke English: those who had had such an experience used more varied vocabulary than those who had not had such a chance.

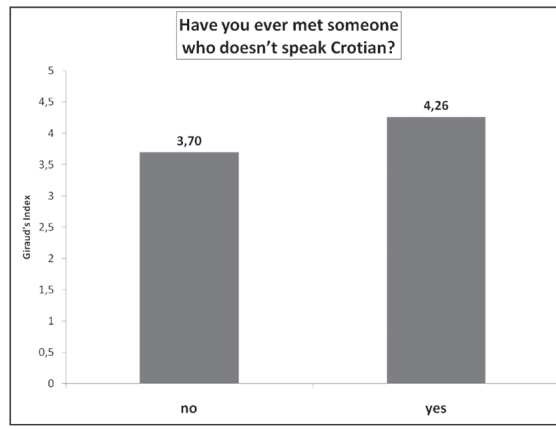

Figure 6: Interaction of lexical diversity with meeting foreigners

The experience of meeting and communicating with someone who speaks English was probably very motivating for the young learners: as Marschollek (2001) found, contact with speakers of L2 is a strong factor that can maintain young learners' motivation over an extended period of time. It likely contributed to their language awareness: they could see that English is a means of communication in real life, not just a school subject. Such experiences very likely boosted the learners' self-confidence as well. All this may have caused the differences in the achieved levels of lexical diversity.

The information gathered from the parents concerned estimation of time their child spent weekly on watching programmes in English, or on playing, listening to, reading or speaking English outside school. In Table 2 we present correlation of Guiraud's indices with the amount of contact with English through the listed types of activities.

Table 2: Interaction of lexical diversity and amount of contact with English through different activities outside school

Correlations

		Oral 2010 point	q1a_ Watching	q1b_Playing	q1c_Listening	q1d_Reading	q1e_ Speaking
Oral 2010 point	Pearson Correlation	1	,481**	,397*	-,061	-,040	,332
	Sig. (2-tailed)		,006	,037	,759	,854	,122
	N	36	31	28	28	24	23
q1a_Watching	Pearson Correlation	,481**	1	,490**	,362**	,085	,096
	Sig. (2-tailed)	,006		,000	,000	,386	,330
	N	31	137	126	127	106	106
q1b_Playing	Pearson Correlation	,397*	,490**	1	,344**	,254**	,233*
	Sig. (2-tailed)	,037	,000		,000	,010	,017
	N	28	126	127	121	103	105
q1c_Listening	Pearson Correlation	-,061	,362**	,344**	1	,222*	,097
	Sig. (2-tailed)	,759	,000	,000		,023	,326
	N	28	127	121	129	105	105
q1d_Reading	Pearson Correlation	-,040	,085	,254**	,222*	1	,484**
	Sig. (2-tailed)	,854	,386	,010	,023		,000
	N	24	106	103	105	107	103
q1e_Speaking	Pearson Correlation	,332	,096	,233*	,097	,484**	1
	Sig. (2-tailed)	,122	,330	,017	,326	,000	
	N	23	106	105	105	103	106

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

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

Only the time spent watching programmes in English and playing games in English correlated significantly with lexical diversity. Watching referred mostly to cartoons or TV series and playing video or computer games, and this perhaps explains the obtained significant coefficients in Table 2. Enjoyable activities that reflect young learners' interests and give them pleasure probably engage learners in ways that contribute to language acquisition at the lexical level. We may assume that at an early school age listening, reading and speaking activities are more relevant in the classroom setting than outside school because they are guided and geared towards L2 acquisition. Another aspect should be mentioned here as well: the contact with English through the five types of activities was not the same: it varied from 65.7% and 46.5% of children being exposed to English more than two hours per week through watching and playing respectively, to much lower percentages of children with the same amounts of exposure through reading (7.5%) or speaking (8.5%). It is very likely that there might also be a certain threshold in the amount of L2 exposure for it to exert an effect on young learners.

3.6.3.3 Lexical diversity and the socioeconomic status

We looked into the relationship of lexical diversity and the parents' level of education as indicators of the socioeconomic status of the learners. The correlations between these variables are presented in Table 3.

Table 3: Lexical diversity and education levels of parents

Correlations

		Oral 2010 point	education_ mother	education_ father
Oral 2010 point	Pearson Correlation	1	,300	,213
	Sig. (2-tailed)		,096	,242
	N	36	32	32
education_mother	Pearson Correlation	,300	1	,406**
	Sig. (2-tailed)	,096		,000
	N	32	150	147
education_father	Pearson Correlation	,213	,406**	1
	Sig. (2-tailed)	,242	,000	
	N	32	147	147

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

In contrast to some other studies (e.g. Sankoff/Lessard, 1975; Bradac/ Konsky/ Davis, 1976) we did not find any significant interactions with either the mother's or the father's levels of education. It is possible that differences in parents' education are not relevant at the beginners' levels of early L2 learning in the Croatian context.

3.6.4. Two case studies

As the quantitative analyses described in the previous sections clearly show there are many factors that lexical diversity interacts with. Interactions complexify

further when a longitudinal perspective is taken. In this section we would, therefore, like to look into the profiles of two young learners from a longitudinal perspective and try to contextualise their lexical diversity more broadly. The selected learners' performances on the oral task are placed at the two extreme ends of lexical diversity reached by children after four years of learning English.

Matija

Learner profile

Matija is a boy who attended one of the village schools. He had the same qualified teacher during all four years. She was very experienced and believed in early foreign language learning. Her teaching approach was age-appropriate and she used English about 50% of the class time on average. The school was well equipped with various media but the teacher used only the CD player at the beginning, then introduced DVD and the computer into her teaching. Her classes were generally interactive, she was very patient with her pupils and most of them seemed very engaged during lessons.

Results of the motivational interviews and smiley questionnaires suggested that Matija liked learning English during all the four years. In grade two he did not particularly like learning new words but this changed already in the following grade. His most often reported favourite activities were singing and playing and for some time he liked doing tests. English was first his favourite subject but was later replaced by Maths. According to his reports English seemed to be getting easier from year to year. His self-concept as a learner of English kept changing and moving towards the less positive end. In grade one he thought he learned English faster than most of his classmates. In grade two he was less certain and found it difficult to compare himself to others. In the following year he claimed he learned just as fast as others, while by the end of grade four he thought others were better than him because they worked harder. Observation of Matija's classroom behaviour, however, did not substantiate his claims. During classroom visits over the four years Matija was observed to display average interest in classroom activities and his engagement generally ranged from low to average. He seemed to get easily distracted and hardly ever volunteered to participate in the activities. Most of his language production consisted of repeating after the teacher, and it was obvious that he often could not understand the teacher's instructions but had to look what others were doing to be able to follow.

As far as attitudes to classroom teaching are concerned, Matija first preferred both the traditional format and sitting in a circle on the floor. These preferences were replaced by the group work classroom arrangement while the traditional classroom became the least favourite because 'the children only stared at the blackboard and did not learn anything'. In the final year the traditional classroom became his favourite again because, he claimed, it was obvious that the children were learning.

Matija's mother had secondary school education, while the father had finished primary school only. Although both had learned English at school and connected it with positive experiences, they reported having no real knowledge of the language. In terms of attitudes to early learning they did not believe that learning English from grade one was useful for children or that it would be beneficial for later learning; they thought that English could possibly be useful for finding a good job in the future; they were not sure if learning English was fun for children or whether it was in the way of learning other school subjects. In contrast to such expressed attitudes, Matija reported that his parents were very supportive of his learning of English and that they, together with his sister, helped him with homework and learning English in general.

Out of school exposure to English was very limited for Matija. He never met anyone who could not speak Croatian and with whom he could communicate in English. There was an English dictionary in his house and in grade four he would consult it when he wanted to look up a word. The main source of exposure to English was TV: he would watch cartoons and children's films, sometimes with his parents. They claimed such exposure amounted to around six hours per week. Matija had no access to the Internet.

Matija's language learning ability was described as average by the teacher. His listening comprehension scores during the four years were either the lowest or among the lowest in class. He performed very poorly on the reading comprehension task as well.

Below is the transcript of Matija's oral interaction during the *guess who* game.

(I=interviewer; L=learner)

I: Ok! Is it a boy or a girl?
L: **No.**
I: No? Nije ni dječak ni djevojčica? [it's neither a boy nor a girl?] Is it a boy or a girl?
L: **Boy.**
I: A boy. Ok. It's a boy. And how old is he? How old? Ivona is ten, you are ten, how old is the boy?
L: (*long silence*)
I: Možda znaš koliko ima godina? [Do you perhaps know how old he is?]
L: (*shakes his head*)
I: hunhunh dobro! [Good!] Is he happy or sad? The boy? Is he happy or sad?
L: **Yes.**
I: Happy?
L: **Yes.**
I: Šta znači happy? [What does happy mean?]
L: (*silence*)
I: What does he look like? What does he look like?
L: (*silence*)

I: I've got short brown hair. And your boy? What does he look like?
L: **You.**
I: Šta sam te pitala, Matija? [What did I ask you, Matija?]
L: (*silence*)
I: Kako izgleda dječak kojeg si izabrao? [What does the boy you chose look like?] Je l' mi možeš nešto reć'? [Can you tell me anything?] What does he look like? Kako ću ja pogodit' ak' mi nešt' ne kažeš? [How can I guess if you don't tell me anything?] What does he look like?
L: (*silence*)
I: And what is he wearing? What is he wearing?
L: (*silence*)
I: Look. I'm wearing jeans! Jeans! Coat! Boots! What is he wearing?
L: (*silence*)
I: Where is this person in the picture? Where? Where is this person in the picture?
L: (*silence*)
I: Is he near the window?
L: **No.**
I: No! Where is he?
L: (*silence*)
I: What is he doing?
L: (*silence*)
I: What is he doing? I'm sitting! You're sitting! What is he boy doing?
L: (*silence*)
I: Would you like to be his friend?
L: (*silence*)

Change of roles

I: Prvo je li dječak ili djevojčica. [First ask if it is a boy or a girl.]
L: (*silence*)
I: Eer možeš pitat' recimo što radi. [You can, for example, ask what he is doing.] Kad ti ja odgovorim, onda ćeš ti moć' vidjet' kog' sam ja to sebi zamislila. [When I reply you will be able to see who I have chosen.] Kak' ćeš pitat' na engleskom što radi? [How will ask in English what he is doing?]
L: (*silence*)
I: A je l' me možeš pitat' što ima na sebi? [Could you ask me what he is wearing?]
L: (*long silence*)

As can be seen from the transcript, Matija produced a total of six words: *no, boy, yes, yes, you, no*. These included only four types. The Guiraud's index was 1.79, the lowest in the whole of the Croatian sample. Matija's performance in the interview shows that he could not comprehend most of what his interlocutor asked, nor could he pose questions even when he was suggested in L1 what to ask. He obviously had problems with both vocabulary recognition and retrieval. Looking back at his profile described above, we believe that such low lexical diversity is the result of interactions of a number of his individual characteristics as well as of the contextual factors. Matija's lack of focus and engagement during English lessons, combined with limited exposure to English outside school and low importance his parents assigned to knowledge of English, probably

contributed to his poor progress in all aspects of learning English, including lexical diversity.

Krešimir
Learner profile

Krešimir attended a city school with a long tradition of early foreign language learning. The school also ran an international curriculum for children of foreign diplomats and businessmen. During the four years three different teachers taught Krešimir's class. The first two were class teachers with a minor in English, the third one had majored in English Language and Literature. They all used age-appropriate methodology based on games, songs and short activities, and focused on oracy. Their use of L1 ranged from 75% to 50%, with the third teacher (teaching in grades three and four) insisting on translating into L1 everything she said in English. The attitudes to early learning of English in this school were highly positive. The school was equipped extremely well but only CD and DVD players and a computer were used during English classes. From grade three on there were difficulties in keeping learners on task, probably due to the third teacher not being successful in classroom management.

In grade one English was one of Krešimir's favourite subjects. His smiley questionnaire results were not always in line with his interview replies: he would express a dislike of speaking activities through smileys but claimed in the oral interview that he liked speaking best. In grades two and three English was not mentioned as a favourite subject but it became his favourite again in grade four when he said he liked speaking best because he was good at it. His preferences for classroom activities switched from reading and playing competitive games to drawing, singing and speaking in grade four. He perceived his English classes as getting increasingly easier each year. Krešimir's self-concept was positive throughout the four grades. In grade one he claimed he was a little bit better in English than most students in his class, while in grade two he confidently claimed he was the second best in class. In grades three and four he also considered himself better than his classmates, basing this claim on his parents' praise, the fact that he took additional classes in English and on his ability to recognize many English words. In class Krešimir was highly interested in all activities, very participative and often took initiative or volunteered answers. Both his comprehension and production were significantly higher than those of others' in class and he would regularly finish tasks earlier than others. Trying to show off he would often get disruptive and soon turned into a problem learner in terms of discipline.

Krešimir's attitudes to language teaching kept changing: his preferences developed from the unstructured chaotic classroom format to the one with everyone sitting in a circle on the floor to the highly structured traditional teaching format where he claimed children could really learn.

Both Krešimir's parents had a university degree, could speak English and used it professionally. His brother was competent in English too. The parents strongly believed that learning English was useful and fun, led to a better knowledge at an older age and to positive attitudes to other cultures. They thought that early language learning might be difficult for some children, might not always help much when looking for a job, but agreed that starting early is a good idea. They did not think that early learning could have a negative influence on learning other school subjects. Krešimir said that his parents supported his learning of English. In grade one they did not help him with English because he did not need any help. Later they would help only if he asked them to.

Krešimir's exposure to English outside school was extensive. He often met foreign children who went to the same school as well as foreign children who came to Croatia for summer holidays. His experiences of communicating in English were mostly positive. According to his parents, he watched cartoons and films in English for two to three hours per week, and also played computer games, listened to music, read picture books and used English during family trips abroad. He had access to the Internet as well.

Krešimir was assessed by his teachers as a high-ability language learner with some of the skills being outstanding. He obtained top listening comprehension scores in all the four years and his reading comprehension results were also high.

The transcript of Krešinir's oral interaction during the *guess who* game:

(I=interviewer; L=learner)

I: Is it a boy or a girl?
L: **It's a boy.**
I: How old is he?
L: **Nine years old.**
I: Is he happy or sad?
L: **Happy.**
I: What does he look like?
L: Što ima na sebi? [What he is wearing?]
I: What does he look like?
L: **Kako izgleda?** [What he looks like?]
I: Yes. Is he tall, is he short?
L: **He's short, he has short hair, his hair is black, he's happy**...
I: What is he wearing?
L: **He's wearing a yellow T-shirt**.
I: Where is this person in the picture?
L: **Near the table**.
I: What is he doing?
L: **He, with his**.... Kak se kaže popravljati? [How do you say fixing?]
I: What is he doing? Is he running?

L: **No, he's in the invalid**... kak se to kaže...? [wheel(chair)… what's the word?]
I: Wheelchair. Ok. He is sitting.
L: **Yes. Ok.**
I: Would you like to be his friend?
L: **Yes.**
I: Why?
L: **Because I think he is very nice.**

Change of roles

L: **It is boy or a girl?**
I: It's a boy.
L: **What he wearing?**
I: He is wearing a blue T-shirt and black trousers.
L: **What he doing?**
I: He's kneeling down.
L: **Is this him?**
I: Yes. Can you ask me more questions?
L: **What he has on the his T-shirt?**
I: Some kind of yellow circle.
L: **What's he doing?** A ne, to sam pit'o. [Ah no, I've already asked about that.] **How old are they boy now?**
I: I think he's ten years old.

Guiraud's index of Krešimir's lexical diversity was 5.30, the highest in the Croatian sample. It is clear that he could recall lexical items easily or, when he encountered a problem, he readily resorted to communication strategies (e.g. when he could not think of the word 'wheelchair'). Taking into account his active engagement in class, interest in oral activities, extensive exposure to English outside school, the value assigned to knowledge of English by his family as well as parallel progress in listening and reading comprehension, it is perhaps no wonder that Krešimir's lexical diversity is high.

3.7. Conclusion

In our study we looked into lexical diversity levels reached by Croatian young learners of English as L2 after four years of learning. We were also interested in their interactions with a number of linguistic and non-linguistic factors. Our findings indicate that young learners differ in the development of their lexical diversity. The interactions we established with selected individual and contextual factors suggest that lexical diversity does not develop independently of other L2 learning aspects. Thus we found that, in our sample, lexical diversity correlated with listening and reading comprehension as well as with the young learners' attitudes, motivation and self-concept. Significant correlations were found with type and amount of outside school exposure to English. In contrast to previous studies, we did not find a significant relationship between lexical diversity and the socio-economic status as measured by the parents' education level.

These findings point to some areas of L2 teaching where L2 teachers may intervene to stimulate the development of lexical diversity of their learners. We

believe that there is room for action within both the individual learner factors and the contextual factors. The area that is, in our view, potentially very promising but is conspicuously under-researched is the role of outside school exposure to L2. The relevance of such exposure has been acknowledged by practising teachers and researchers alike, but we still lack basic insights into its impact on the learning process, or into whether and how L2 teachers make use in class of what their learners bring from out of class.

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LEKSIČKA RAZNOLIKOST U RANOME UČENJU ENGLESKOGA KAO INOGA JEZIKA

Autorice razmatraju leksčku raznolikost u kontekstu ranoga učenja engleskoga kao inoga jezika. U uvodnome, teorijskome dijelu članka definiraju pojam leksičke raznolikosti, problematiziraju pristupe njezinom mjerenju i opisuju relevantna istraživanja na koja se oslanjaju u vlastitome istraživanju. Drugi dio rada posvećen je opisu istraživanja koje su autorice provele s hrvatskim učenicima engleskoga jezika koji su taj jezik počeli učiti od prvoga razreda osnovne škole. Ispitale su razine leksičke raznolikosti koju je 42 hrvatskih učenika dostiglo nakon četiri godine učenja. Razmotrile su i povezanost leksičke raznolikosti i niza individualnih učeničkih karakteristika te kontekstualnih faktora. Rezultati do kojih su došle upućuju na veliki varijabilitet u razinama koje hrvatski učenici dostižu tijekom ranoga učenja. Utvrdile su i da je leksička raznolikost povezana s učeničkim stavovima, motivacijom i pojmom o sebi te s vrstom i količinom izloženosti engleskome jeziku izvan škole.

Key words: early L2 learning, lexical diversity, Guiraud's index, individual factors, contextual factors

Ključne riječi: rano učenje inoga jezika, leksička raznolikost, Guiraudov indeks, individualni faktori, kontekstualni faktori