

Data-Driven Learning The Serbian Case

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Abstract Data-Driven Learning (DDL) is almost non-existent at the university level in Serbia when it comes to using DDL in foreign language teaching. Having analysed the curricula at a number of universities, we concluded that DDL is dealt with on a very small scale. That is why we decided to explore what the situation is like among teachers in primary, secondary and private language schools in Serbia, alongside a small number of those who work at university level. A small, exploratory study was designed to answer these questions: if and how much the teachers in Serbia knew about DDL and whether they used it in their teaching. In order to study this phenomenon, we conducted short interviews with one hundred teachers (N=100) from all over Serbia. Unfortunately, a vast number of them has never heard of this approach.

Keywords DDL. Teachers. Training. Presence. Experiences.

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1 Introduction

Almost four decades have passed since the term Data-Driven Learning (DDL) was coined. Since then many papers have been written on the topic, and some research has been conducted (e.g. Ilse 1991; Fligelstone 1993; Ching, Wong 1994; Gavioli 1997; Kennedy, Miceli 2001; Boulton 2009; Conroy 2010; Sah 2015; Behzadian 2016, to name just a few). Despite this fact, Gilquin and Granger (2000, 6-7) note that we need more proof and empirical studies to provide us with results concerning the effectiveness of DDL in teaching a foreign language. Although it is being discussed widely and internationally, this approach to foreign language teaching has been almost non-existent at the university level in Serbia. By this we mean that the lectures and classes dedicated to training future foreign language teachers do not mention DDL at all, or they do, but very briefly and marginally. Our main goal in this research was to find out whether currently active teachers know what DDL is and whether they use it in their classrooms, i.e. we wished to see if DDL is prominent even though it is not discussed and taught at universities.

1.1 The Place of DDL in Serbia

Since the study we conducted sought to answer what the situation is like in Serbia, it is significant that we briefly discuss a notable case of using DDL for foreign language teaching that we encountered. Unfortunately, we were unable to find any other research done in this field in Serbia.

Even before fully analysing the findings of our research we were somewhat aware that DDL and using corpora in ELT classes were not present enough in our country. Examples such as the one from Elementary School "Mito Igumanovic" in Kosjeric, where the students, aided by their teacher Zoran Ristović, PhD, used the corpus in learning English as a foreign language, are rare, but certainly worth mentioning.

In his work Ristović (2016, 112) used a self-compiled, bilingual, English-Serbian corpus with 240 pupils during a three-year period. The corpus consisted of approximately 250,000 words. He explored and presented the making of a bilingual corpus and its effects on both teaching and learning of English in elementary schools (Ristović 2016, 95). In his paper he gives a set of useful exercises and suggestions how such a corpus could be used in teaching (2016, 101-11). Unfortunately, Ristović is among very few people who have recognised and utilised the vast didactic potential DDL has.

2 Research Motivation

Before conducting the main research that will be presented here, we did two relevant investigations. Their goal was to prove our assumption that DDL is not an integral and prominent part of university teaching in Serbia. We searched for relevant terms in ELT books (most of which are used in different ELT courses) and we analysed the curricula of different ELT university courses in Serbia.

2.1 DDL and Concordance in ELT Books

To start our quest, we did a search for relevant terms in several prominent ELT books. The search also included a couple of books used in ELT courses at the Faculty of Philology of Belgrade University, and not elsewhere. The relevant terms were picked according to those used by Tim Johns in his 1991 article, where he described his experience with DDL. It was decided that the term search would be the following: Data-Driven Learning (DDL) and concordance (Johns 1991, 2). Other notions connected to DDL (such as inductive learning, computer-assisted language learning, computer-assisted instruction, rule-hiding, corpus, etc.) were not taken under consideration since they were regarded as too general by the authors of this paper. Below are the results of this search.

The following books, given here in chronological order, do not include the abovementioned words: Thornbury 2006; Kitić 2007; Hrehovčík, Uberman 2010; Pilipović 2010; Lightbown, Spada 2011.

Harmer, one of the most prominent authors in ELT, is heavily relied on when teaching English language methodology in Serbia is concerned. His book *How to Teach English* gives one example of how teachers can use concordances to explain vocabulary to their students. Harmer (1998, 56) suggests that students look at the printout from a computer and figure out the meaning of the word for themselves. This author also offers a list of concordances at the end of his book, and these might be very useful to (future) teachers (1998, 188).

In Edge and Garton's book *From Experience to Knowledge in ELT* there is a very good explanation of what a concordance is, and relevant examples are given (2012, 38, 39). However, this is part of a section dedicated to teaching vocabulary, and the definition of a concordance that these two authors give serves to help define what a word is, what idioms are, and what context is. This section does not explore the myriad of ways in which concordances can be used in language teaching.

2.2 Universities' Curricula

The motivation for our research was also found in the observation that Data-Driven Learning is not mentioned in any of the ELT courses at the Faculty of Philology, Belgrade University. Using this as our starting point, we explored the curricula of other philological faculties in Serbia, and found that the situation is similar. There are eight state and nine private universities in Serbia, for a total of seventeen. Out of that number there are only seven universities with philological faculties (six state universities and one private university). Three out of the seven universities do not offer descriptions of individual subjects/courses, and this made it impossible for us to conclude whether or not their curricula include any mention of DDL. Out of the four universities, i.e. philological faculties that were left, we did not find any mention of DDL.

We observed just the English language department curricula at the state and private universities in Serbia, and also only the curricula concerning the first degree of studying, BA. We did not look at the curricula for other foreign languages since there is considerable data to go through, and this part of our research was supposed to serve just as a starting point for the main body of research, and most importantly, the interviews we did for this research included only the English language teachers, not the teachers of other languages. We did not consider the curricula for the MA and PhD studies, because we did not ask our interviewees whether they had obtained more than a BA, but we know that all of them have finished the undergraduate studies. Although the description of subjects found at various faculty websites are shrewd, and there is a possibility that DDL is mentioned in lectures but not in the curricula itself, a look at the reference lists does not include any DDL publications either which further solidifies our opinion.

3 Research Methodology

We prepared a five-question questionnaire for this research (see Appendix) and used it to encompass basic information related to our survey. The first two questions were aimed at ascertaining if our sample was homogenous and what the participants' profile was. We were interested in the age of the respondents and their place of employment (private or state sector). Then we asked whether they were familiar with DDL. If they were familiar with DDL, we asked them to what extent this was the case and if DDL was a part of their lessons. If they were not familiar with it at all, we checked whether they would like to know more and in what way.

This questionnaire served as a guideline while we conducted our interviews. It is crucial to mention that all the interviews were done

in person. We decided that a more realistic picture could be seen if we talk to people face to face, instead of conducting an online questionnaire, for example. Our assumption was that people are often ashamed if they do not know something, and some of them would not be honest when they answer the questions. We were able and fortunate enough to encounter this large number of English teachers at the annual ELT conference in Serbia organised by ELTA Serbia. Most of the interviews were conducted at this event which took place in the spring of 2018.

When it comes to the question related to age we set up 6 categories: below 21, between 21 and 30, 31 and 40, 41 and 50, 51 and 60, over 60. We wanted to make sure that we had a more or less even distribution of age groups among our interviewees.

A second important piece of data was connected to the institution where the interviewees worked. Options offered were the state sector, and here we made a division between persons working in elementary schools, high schools or faculties, and the private sector. Elementary school sector was divided into two separate categories: lower grades (first to fourth) and higher grades (fifth to eighth), according to the design of the Serbian education system. English is taught from the first grade in Serbia and it is present throughout the entire education. The private sector included private foreign language schools that are wide-spread and popular in Serbia. Most of our respondents (48%) actually work in private language schools. The last, sixth option, was "other (please specify)". What we feel is important to note is that the conditions of work in most state elementary and high schools are deficient, that is, the number of computers used in class for work on corpuses is limited. Some of the schools have computers, in insufficient numbers, while most do not have any. Application of DDL in class is disabled in this manner. When we are talking about state faculties, i.e. the Faculty of Philology in Belgrade, the Department for English Language and Literature has a limited number of computers and, unfortunately, DDL is not used in English classes. Students bring their own computers during translation exercises since the Faculty of Philology is not able to afford the use of computers for financial reasons. The situation in private language schools is certainly better. They are better equipped, they have fewer students and they frequently use modern technology in classes. The assumption then is that private language school teachers are more likely to know and use DDL.

The third question we asked included two questions in its form, namely: "Do you know what Data-Driven Learning (DDL) is?" and "Do you use it in teaching and to what extent?". We made a decision to combine these two questions since we consider them mutually exclusive, i.e. if a teacher has never heard of DDL we cannot expect him or her to be using it in class, and if someone is using DDL in class of-

ten they are thought to be familiar with the approach. The answers we received justified this logic.

In the fourth question we asked the respondents to tell us how is it that they found about DDL, if they in fact know at least something about it. We were interested to learn whether our respondents have heard anything related to DDL before and, if yes, how they came to know about this approach, i.e. what are the most common paths used for spreading this kind of information.

The last, that is the fifth question, was a simple yes/no question, and it was the following: "If you do not know what DDL is, would you like to find our more?". This was the question we used to test how many of our teachers were interested in learning about DDL.

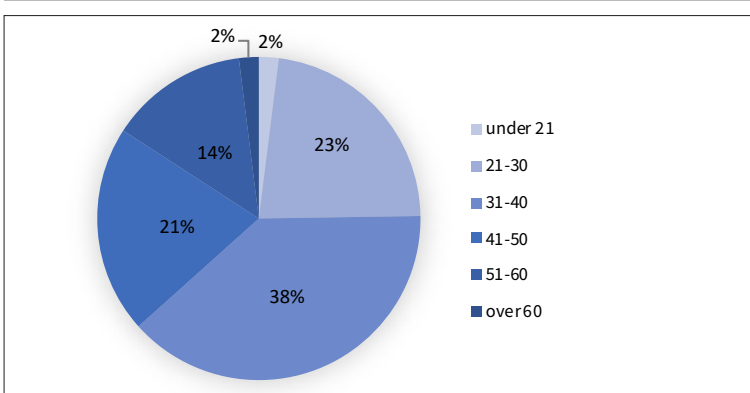
4 Results and Discussion

In the following section we present and discuss the findings of our research. We show and analyse the answers to the five questions we asked our participants.

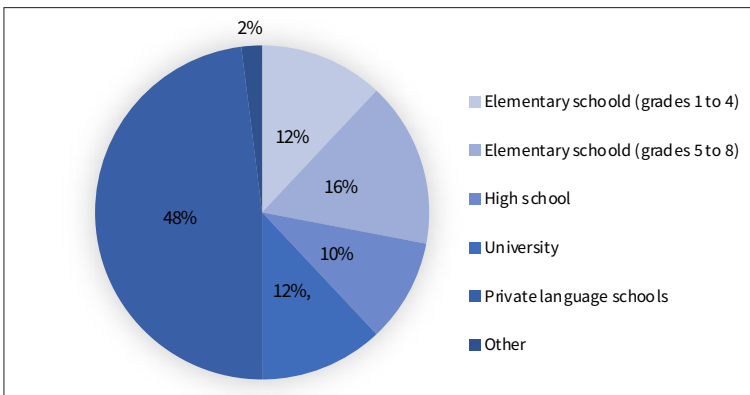
4.1 Age

From graph 1 below we see that the age of the participants in our research is more or less evenly distributed, with the exception of two age groups, those who are over 60 and under 21. This was expected, since most teachers over 60 do not work anymore and those who are under 21 are still students.

The importance of age was also interesting to us because we wished to check what age group was familiar with DDL the most, that is, informed the most about this approach in the area of teaching foreign languages. Our assumption was that it was the youngest generation - connecting it to the frequency of use of modern technology, not only at work. Interestingly enough, the questionnaire showed that it was the age groups 31-40 and 41-50 who knew the most about DDL. This is just a side note to the main research, but we believe one that is worth mentioning.



Graph 1 The participants' age



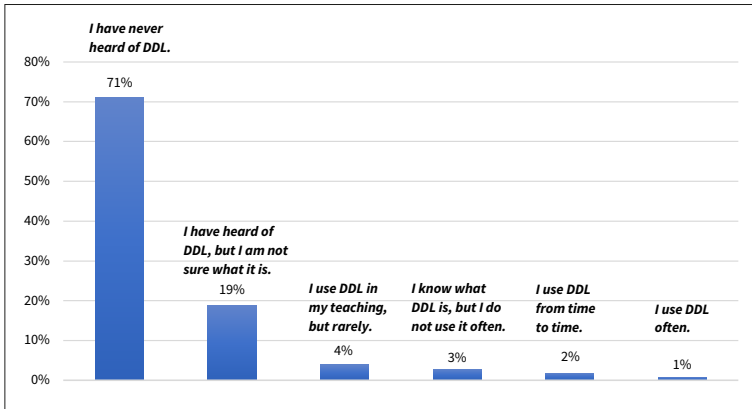
Graph 2 Place of employment

4.2 Place of Employment

In terms of where the participants of our research work [graph 2], we observed that almost half of them teach at private language schools (48%). The other half is more or less equally spread over other places of employment: elementary school (28%, with 12% teaching lower grades and 16% teaching higher grades), high school (10%), university (12%), and only 2% of the interviewees who work in some kind of specific institution (e.g. American Corner or a school for disabled children). This means that we were able to gather data from a variety of resource, i.e. from a similar number of people working at different levels of education. Roughly half of them work in the private sector, and the other half work in the public sector. We have, more or less, the same number of people working at different levels of public education. This, we believe, helps us show a true state of things when it comes to DDL.

4.3 Do You Know What Data-Driven Learning (DDL) is? Do You Use It in Your Teaching and to What Extent?

The core of our research concerns two main points: determining whether English language teachers have heard of DDL and, if yes, to what extent they use it with their students. As expected, the majority of interviewees have never heard of this method (as much as 71%). Most of the other teachers (19%) have heard of DDL, but they are not sure what it is. Only 3% know what it is, but they do not use it and 4% use it rarely. Another 2% use it from time to time. There was only one teacher we interviewed who said they used DDL often. It would be worth exploring in what way DDL is part of language teaching, i.e. which particular activities are used and to what end. However, this might be the subject of our next investigation, since we failed to include it as part of the current study.



Graph 3 The familiarity with and presence of DDL

4.4 If You Know at Least Something About DDL, how is It that You Found Out About It?

The few teachers who have heard something about DDL obtained their information from various sources, and their answers are more or less evenly spread. The answers they offered are the following:

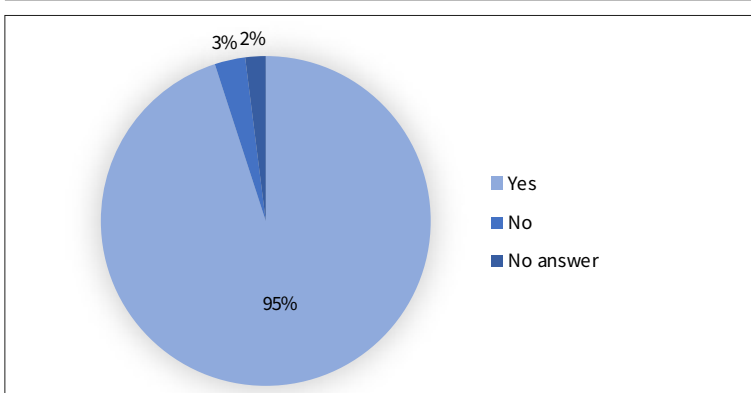
- from a friend (2%)
- from other teachers (2%)
- on the Internet (4%)
- I don't know (2%)
- I can guess the meaning (2%)

Although a small percentage of the interviewees could say anything concerning this question, since most are unfamiliar with DDL, their answers could be analysed. As is common knowledge, most people's source of information nowadays is the Internet. This is even more logical in the case of DDL, since the approach itself is primarily computer-based. Next, the people we interact with, colleagues and friends, are the people that share with us their interests and sometimes they cannot remember how it is that they found out about something, which is a plausible and acceptable situation to be in. Somewhat problematic are the answers of those who say that they intuitively know what DDL is from the name of the approach. One should decide whether guessing is the same as knowing, and in terms of science it usually is not. However, while conducting the interviews, we asked those 2% of people to tell us what they assume DDL is, and the answers we received from them were correct in their essence. So, we concluded that they do, in fact, know something about DDL without having heard about the approach from another source.

4.5 If You Do not Know What DDL is, Would You Like to Find Out More?

A comforting fact is that a vast number of the interviewees are interested in finding out what DDL is (95% of the people who do not know what DDL is and those who are not completely sure what it is). Only 3% were not interested in learning more, and 2% did not wish to answer this question [graph 4]. It is notable that, while conducting the interviews, and mentioning DDL to people, most of them, after we had finished talking about the topic, asked us to briefly explain what DDL was and how it could be applied in ELT.

Most of our examinees are of the opinion that technology is unavoidable if we wish to acquire the knowledge and become well-rounded teachers of successful learners. Those with several years of experience in teaching English as a foreign language are aware how the visual perspective, motivated learning, learner autonomy and presentation of grammar, vocabulary, etc. through a multitude of examples are important for the quality of lectures, and this is precisely what DDL offers. For them, the acquisition of a foreign language seems significantly facilitated in this manner.



Graph 4 Finding out more about DDL

5 Conclusion and Further Research

All in all, the status of DDL in Serbia should not be viewed as bad. This status is slowly changing. Although our research is conclusive about the majority of teachers not being familiar with this approach, now some steps could be taken to change this.

Not only is it necessary to familiarise English language teachers (both in state and private institutions) with DDL, it is also important to inform the students with all the benefits of this type of learning. The advantage of DDL introduction in lower classes of elementary school, as was done by Ristović (2016) might contribute to the progress of each student. Through the application, comparison and analysis of a large number of examples the lecturer is provided with an opportunity to monitor the progress of each student, and, at the same time, the students are provided with detailed insight into English grammar, syntax, collocations and phrases. In this manner self-confidence is built in practical examples of language knowledge, that is, in translations, texts and speaking exercises. Including DDL in the work of pupils will have positive, long-term effects on its usage among older students.

Taking into consideration all of the above, we deem that the use of DDL would be beneficial and interesting not only for English teachers in elementary, high schools, private schools and faculties, but for pupils and students as well. We need to support the use of modern technology in education and always use it to our advantage. Our opinion is that in Serbia, both in the public and the private sector, it is necessary to incorporate the use of electronic corpora, that is, to apply DDL in lectures and classes, since this is the only way to contribute to the improvement of teaching and foreign language learning process.

Also, it is important to organise a number of seminars, conferences and workshops where English teachers would be able to receive additional information and familiarise themselves with the use of DDL, since it moves boundaries of modern learning of foreign languages and certainly contributes to the advancement of the language learning process quality for current and future students. Professionals interested in further exploring the field of DDL could find some of the articles and books listed below very useful. All of them contain invaluable reference lists for further reading and exploration.

- Stevens (1995) - this helpful article provides a beginner at using DDL useful tips on where to find concordances, which texts to use, and how to use them.
- Gilquin and Granger (2000) - a detailed, but concise enough, account of all the important aspects of DDL; its definition, the way it is used, the many advantages of using it, and the few drawbacks it poses.
- Gavioli (2005) - a book oriented towards using corpora in an ESP environment.
- Hunston (2010) - a book teacher-trainers, university teachers and professors would find useful in preparing lectures or courses that would deal with using corpora in foreign language teaching.

To end with, Stevens (1993, 11) once said that language teachers fall into three groups: those who have never heard of concordances, those who have not yet taken them seriously, and those who swear by them. We firmly believe that Serbia and its teachers are slowly going to become firm believers of the numerous benefits of DDL.

Appendix

This interview is anonymous and the answers will be used in a research which is to be presented at a conference dedicated to Data Driven Learning. Thank you for taking the time to answer the questions. Please give us the answers to the following questions, as best you can.

Age:

under 21

21-30

31-40

41-50

51-60

over 60

Place of employment (more than one answer may be chosen):

elementary school (grades 1 to 4)

elementary school (grades 5 to 8)

high school

private language school

university

other (please specify):

Do you know what Data Driven Learning (DDL) is, do you use it in your teaching and to what extent? (one possible answer)

I have never heard of DDL.

I have heard of DDL, but I am not sure what it is.

I know what DDL is, but I do not use it.

I use DDL in my teaching, but rarely.

I use DDL from time to time.

I use DDL often.

If you know at least something about DDL, how is it that you found out about it?

If you do not know what DDL is, would you like to find out more? Yes No

Bibliography

- Behzadian, K. (2016). "The Effect of Input Enhancement and Concordance-Based Activities on Iranian EFL Learners' Acquisition and Retention of Phrasal Verbs". *Michigan Academician*, 44(1), 29-50. <https://www.questia.com/library/journal/1G1-491781976/the-effect-of-input-enhancement-and-concordance-based>.
- Boulton, A. (2009). "Testing the Limits of Data-Driven Learning: Language Proficiency and Training". *ReCALL*, 21(1), 37-54. <https://doi.org/10.1017/S0958344009000068>.
- Ching, L.P.; Wong, I.F.H. (1994). "Using Concordance-Based Material for Teaching Verb Inflections". *TESL Reporter*, 27(2), 50-4.
- Conroy, M. (2010). "Internet Tools for Language Learning: University Students Taking Control of their Writing". *Australasian Journal of Educational Technology*, 26(6), 861-82. <https://doi.org/10.14742/ajet.1047>.
- Edge, J.; Garton, S. (2012). *From Experience to Knowledge in ELT*. Oxford University Press.
- Fligelstone, S. (1993). "Some Reflections on the Question of Teaching, from a Corpus Linguistics Perspective". *ICAME Journal*, 17, 97-109.
- Gavioli, L. (1997). "Exploring Texts through the Concordancer: Guiding the Learner". Wichmann, A.; Fligelstone, S.; McEnery, T.; Knowles, G. (eds), *Teaching and Language Corpora*. London: Longman, 83-99.
- Gavioli, L. (2005). *Exploring Corpora for ESP Learning*. Amsterdam: Benjamins.
- Gilquin, G.; Granger, S. (2010). "How can Data-Driven Learning be Used in Language Teaching?". O'Keeffe, A.; McCarthy, M., *The Routledge Handbook of Corpus Linguistics*. London: Routledge, 359-70. <http://hdl.handle.net/2078.1/75724>.
- Harmer, J. (1998). *How to Teach English*. Harlow: Longman.
- Hrehovčík, T.; Uberman, A. (2010). *English Language Teaching Methodology*. Rzeszów: Wydawnictwo Uniwersytetu w Rzeszowskiego.
- Hunston, S. (2010). *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press.
- Ilse, W.R. (1991). "Concordancing in Vocational Training", in Johns, T.; King, P. (eds), *Classroom Concordancing*, spec. issue, *ELR Journal*, 4, 103-13.
- Johns, T. (1991). "Should You be Persuaded – Two Samples of Data-Driven Learning Materials", in Johns, T.; King, P. (eds), *Classroom Concordancing*, spec. issue, *ELR Journal*, 4, 1-16. https://lexically.net/wordsmith/corpus_linguistics_links/Tim%20Johns%20and%20DDL.pdf.
- Kennedy, C.; Miceli, T. (2001). "An Evaluation of Intermediate Students' Approaches to Corpus Investigation". *Language Learning & Technology*, 5(3), 77-90.
- Kitić, S. (2007). *An Introduction to Methodology of English Language Teaching*. Niš: Filozofski fakultet u Nišu.
- Lightbown, P.M.; Spada, N. (2011). *How Languages are Learned*. Oxford: Oxford University Press.
- Pilipović, V. (2010). *The Basics of English Language Teaching*. Novi Sad: Prometej.
- Ristović, Z. (2016). "Potentials of Aligned Corpora in Second Language Acquisition: Rethinking Language Pedagogy from a Corpus Perspective". *Naslede*, 33, 95-113.
- Sah, P.K. (2015). "An Investigation into the Relative Effectiveness of Data-Driven Learning (DDL) with Integration into PPP and III". *Journal of Teaching English for Specific and Academic Purposes*, 3(2), 347-66.

- Stevens, V. (1993). "Concordances as Enhancements to Language Competence". *TESOL Matters* 2(6), 11-21.
- Stevens V. (1995). "Concordancing with Language Learners: Why? When? What?". *CAELL Journal*, 6(2), 2-10.
- Thornbury, S. (2006). *An A-Z of ELT: A Dictionary of Terms and Concepts Used in English Language Teaching*. Oxford: Macmillan.