Fostering intuitive competence in L2 for a better performance in EAP writing through fraze.it in a Turkish context

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Abstract

Online corpus referencing through web applications such as fraze.it can help non-native language teachers train tertiary level learners of academic writing by providing them with native or near-native perspectives which come within concordance lines derived from authentic sources. The present study features a semi-experimental design in order to reach an understanding of the impact of simulated academic reading (SAR), which denotes a sentence-based approach to getting students familiar with the authentic use of English in academic texts. The sample ($N = 62$) is comprised of English for academic purposes (EAP) students taking a grammar course with a specific focus on academic writing at the language school of a state university in Turkey. In order to see the difference that SAR could make, the sample was split into an experimental group ($n = 32$) and a control group ($n = 30$). Whilst the experimental group received SAR-weighted grammar aid through effective teacher guidance for seven weeks, the control group was required to follow the guidelines exerted by the existing curriculum. The quantitative data were collected through the application of a delayed pre-test and a post-test, and the scores of the learners in the two groups were compared through a paired sample t-test. The qualitative data was collected by means of an online survey of four open ended questions, and a corpus analysis was conducted to reach common codes and themes emerging in the responses. The difference between the test scores of the two groups were statistically significant. This overall trend was concurrent in the responses to the survey as well. Further research is needed to see the extent to which SAR can change the way learners learn in the long run, though.

Keywords Learner autonomy · Simulated academic Reading · Corpus referencing · Learning grammar · Data-driven learning

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1 Introduction

The challenges faced by non-native speakers teaching academic writing with a specific focus on the colligational structures and language patterns commonly used in scholarly texts and publications can be lessened and even overcome through online concordancing interfaces that allow active and to-the-point filtering toggles. This particular study features the use of the online concordancing software 'fraze.it' to simulate how certain grammatical forms construct the meaning in academic texts and facilitate both the teacher emulation of academic statements and enhance learner comprehension of these forms affecting the meaning, thus causing learner production of written language to become better.

Tertiary level preparatory English programmes targeting to teach learners how to write academic texts such as research papers, reports and so on, within a relatively limited period of teaching time may need to explicitly emphasize the learners' taking up much of the responsibility and allow space for teacher-guided autonomous learning rather than a fully teacher-driven language instruction. Classroom concordancing can be a valuable means of carrying out learner-driven small-scale linguistic research for pedagogical gain might be a feasible means of scaffolding the learners' experience towards a better understanding and implementation of the target language in written register. Online concordancing utilities that allow users to toggle between a variety of filters ranging from syntax to original source could change the whole perspective of language learners to learning as they might find this a valuable opportunity to carry on their studies relatively independently when compared to a more traditional way of language instruction to which they may be accustomed. This denotes, in part, a practice of breaking old habits, which can well be an issue and met with resistance, though.

To this end, the positive reinforcement and pedagogical reassurance offered by the teacher could result in desirable outcomes in terms of both learner achievement and the attainment of curricular goals through statistically observable ways. A good command on the software and trust in the techniques by teachers as actuators of the innovation can help gain a good grip on learners' attention and attendance. The newly proposed technique might not be welcome by the learners; however, teachers' perseverance could lead the way to a better understanding and assimilation of them by the learners. As one might accept, scoring high enough to pass a grammar course does not necessarily have to mean that the exam takers have become capable of understanding how unfamiliar language patterns construct meaning in academic texts and/or producing well-built academic sentences showing a thematic progression demonstrating a coherent manner and pattern that would convey knowledge intelligible to the reader. Learners of academic writing might be in severe need of seeing and observing samples of these statements with a particular emphasis on the grammar forms building up the message. The need for learners being autonomous may therefore be eminent as too much intervention, or spoon-feeding learners, might turn out to be rather onerous hampering the progress and hammering down the impact that could well cause teachers to settle for some undesired consequences, such as a possible failure of the curriculum.

This sort of a learner-centeredness can better be established by guiding learners to explore linguistic data so that they can build up their of experience with the target language in general and the target genre in particular through the effective use of online concordancers aiming at offering language learners and language teachers an easier

means of reaching good exemplars without much pain. With its easy-to-use interface, online concordancing software such as 'fraze.it' can be quite beneficial in terms of the facilitation of simulation process of those language forms and lexicon that feeds scholarly writing. Simulated Academic Reading (SAR), which is this practice of guiding learners to self-access example sentences bearing the target forms in the curriculum, can be a prolific endorsement for both teachers and learners in EFL settings where the teacher is a non-native speaker of the target language (Özer 2019), and this can well turn into a win-win situation as non-native language teachers might lack one very essential instrument, the native intuition, which native speakers of a language have as an internal mechanism that guides them well throughout linguistic challenges. Therefore, it is possible to say that SAR might offer a valuable opportunity to non-native language teachers to train their L2-selves and become naturally stronger in terms of linguistic intuition as well as build up an L2-self in learners on a intuitively sound foundation instead of reciting learned rules, configurations and corroborations of language patterns in an unnatural pathway.

2 Literature review

With the personal computer gaining popularity as of the early 1980s, an abundance of concordancing software such as the Longman Mini-Concordancer (Chandler 1990) or Micro-OCP (Tribble and Jones 1990) has allowed language teachers and learners to perform a variety of pedagogically beneficial activities (Higgins 1995; Johns 1991; Stevens 1991; Witton 1993) in class. Not only did this software offered instant access to a wide range of vocabulary, they were also instrumental in depicting the patterns and forms governing the meaning in language across registers (Carter and McCarthy 1988; Cowie 1989; Laufer 1990) which could otherwise take years of effective reading to build up in the best-case scenario. Corpora such as the "LOB corpus" or the "Lancaster Parsed Corpus" formed the basis for this kind of activities back in the day (Qiao and Sussex 1996, p. 41). However, a lack of technological infrastructure such as the limited availability of personal computers, relatively poor Internet connections and a need for further scrutiny of the new technique might have stopped the new methodology from becoming widespread despite sufficiently observable and efficient learning outcomes.

Coined by Johns in the early 1990s, Data-driven Learning (DDL) was the umbrella term to define the possible wealth of corpus-based activities in a language classroom (Boulton 2012) which would turn out to be a breakthrough in the following decades. Through hands-on experience with corpora via liable software, learners could endeavour a self-paced engagement with knowledge formation in their own right, promoting language development of learners in an autonomous way (Cheng 2012; Hunston 2002; Johns 2002; Reppen 2009). In this respect, DDL seemed to be a liable means of transforming traditional language classrooms into a tech-enhanced learner-centred ones where they actively construct meaning for themselves taking much of the responsibility of their own learning and having full authority on the path they would like to follow through meaningful guidance of the teacher in class (Özer 2019). With these being the opportunities offered by DDL, it obviously aroused a lot of criticism. To mention briefly, much as it offered a novel path for language teachers with "constructivism" Liu and Matthews 2005) in mind, with tangible handicaps such as loose control over data

flux or overwhelming load of input causing frustration in learners (Hunston 2002), DDL seemed to require further scrutiny by researchers to gain acclamation among ELT circles (Boulton 2012). Despite a number of studies criticising the effectiveness of DDL with lower-level learners, the literature on the effectiveness of DDL-based language instruction with learners above a certain cognitive maturity seems to dominate the literature (Cobb 1997; Kennedy and Miceli 2001; Lenko-Szymanska 2002).

To further demonstrate the effectiveness of DDL a combination of a corpus database and a linguistic inquiry tool such as AntConc (Anthony 2019) or WordSmith Tools (Scott 2020) can be utilized to administer DDL exercises and develop to-the-purpose learner-driven sets of teaching material (Boulton 2012; Özer 2019). DDL could prove to be a real time and life-saver especially in language classrooms where non-native speakers teach languages to the speakers of other languages. Özbay and Özer (2017) analyse a teacher-compiled readers corpus as a positive reinforcement in teaching phrasal verbs to high school students who studied English as the main subject and reports on the increase in the level of lexical retention. O'Donnell (2013) maintains that the compilation of a teacher-prepared and needs-driven corpus of level-appropriate texts could form a sound foundation for curriculum design and be used to inform decision taking procedures for in-house material development, which is also supported by Braun (2006), Özbay and Özer (2017) and Özer (2019). Braun (2006, p. 4) uses "pedagogically relevant corpora" to develop teaching material and syllabus design. According to Thornbury (2004), both language teachers and learners can benefit from the instantaneous responsiveness of computational analysis of corpora and concordancing. Sripicharn (2004) considers concordancing a valuable opportunity to test learner-intuition against authentic data. Especially with learners possessing a high level of language proficiency, DDL and concordancing can yield more favourable outcomes (Bernadini 2000; Boulton 2012; Sripicharn 2004). However, this kind of an in-class practice might require excessively technical knowledge which teachers and learners might lack (Boulton 2012) which might thwart progress rather than boost it. Attempts at refurbishing in-class interaction with the target language in a DDL vein might turn challenging in a demotivating way, as learners can find it utterly and bitterly annoying to operate on a computer let alone learn and practice new forms of a foreign language. Two challenges at a time and the sophistication of the procedures involved can pose an affective risk hammering down the effectiveness of the class period which would otherwise be valued by scaffolding learners' way upwards.

Whereas, this does not necessarily mean that one should abandon the DDL philosophy altogether. The World Wide Web itself is a vast source of linguistic data which can be analysed with a web browser without needing a specified platform (Sha 2010). As maintained by Robb (2003), Google alone can be a greater source of linguistic data compared to any other corpus database. The Internet and web browsing for linguistic inquiry attracted a lot of research interest since the early noughties emphasizing the potential in taking the web as a melting pot of all sorts of language produced by native or non-native speakers (Fletcher 2001; Kilgarriff and Grefenstette 2001, 2003; Lüdeling et al. 2007; Resnik and Smith 2003). Furthermore, the dynamic, ever-changing and expanding nature of the web could give access to the most up-to-date usage of language forms and meaning in context (Aston and Burnard 1998). Yet, as put by Fletcher (2001) this almost uncontrollable "self-renewing" (p. 2) quantity of input "tantalizes" (p. 2) linguistic researchers and language teachers alike without the

mediation of a third-party software that is capable of speeding up the learner-corpora interaction. As argued by Fletcher (2001) the Web falls short of forming a corpus database in the traditional sense. The eloquence of the examples (Fletcher 2001, p. 3) found on the Web could go far beyond the comprehension level of the information seekers in language classrooms. Hawkins (1996) writes about different approaches to exploiting Web as a corpus which he divides into categories as hunting (searching the web for a specific piece of information), grazing (using what is available online often prepared by an information provider) and browsing (coincidental acquisition of new information). Fletcher (2001) cites Bickel (2000) who reports that it is possible to discover regional usages of languages through the use of the Web as a super corpus, which also seems to have pedagogical implications in similar studies like Banko and Brill (2001), Grefenstette (1999) or Volk (2000).

With that being the overall situation about the Internet, corpus linguistics and language pedagogy trio, it is possible to discuss that online concordancing tools such as KWICFinder (Fletcher 2001) or Sketch Engine for Language Learning (SkELL; Kilgarriff et al. 2004) can be dwelled upon for hands-on practice in language class-rooms (Kilgarriff et al. 2015) as a convenient means close at hand which would enable language teachers to circumvent the possible handicaps of corpus referencing in class. With a fairer and clear-cut user interface, this kind of web applications facilitate the concordancing process, in other words DDL procedures, for language teachers and learners by operating on a relatively manageable size of data ubiquitous at will. The wilful transaction of such a DDL-based approach may well be capable of transforming the language classroom into a linguistic research center at which teachers and language learners collaborate to notice (Bergsleithner et al. 2013; Schmidt 1990 cited in Robinson 1995). MICASE (Simpson-Vlach and Leicher 2006) of the University of Michigan, a renowned corpus-based approach underpinning corpus-based curriculum development, utilizes the Michigan corpus of academic spoken English to develop teaching materials in house to be used at the language centre for overseas students studying in various fields. The accompanying online application offers learners to explore the MICASE database for pedagogical gain (Simpson-Vlach and Leicher 2006). With the help of this such an online application and the user-friendly interface, learners are granted the valuable opportunity to construct meaning for themselves (Bloch 2009; Schank and Cleary 1995; Spivey 1997) which is in a straight line with DDL philosophy. With the advent of the Internet and Web 2.0 tools, anyone with only a basic level of computer literacy can access and utilize corpora to improve their language skills. Ragini (2019) provides a list of corpus-based webtools that can help learners structure and re-structure their lexical competencies to endorse their oracy and writing skills. Among these are, "Just the Word (JTW)", "Phrase-up", "More Words" and Ninja Words" (Ragini 2019, pp. 210–211). Another example is 'fraze.it' which seems to have received very little attention in the linguistic circles of research. The interface enables the user to switch between a number of toggles that facilitates filtering down the concordance lines that the software generates. Among these are, 'Rule' which enables to list concordance lines that start with the search item, 'Source' by which users can get concordance lines from a selected genre and 'Form' which filters down the database to reveal only interrogative, negative or exclamatory statements (Ragini 2019). The functionality and possible benefits of operating on such an interface as that of 'fraze.it' as a webtool is discussed in only a number of publications. Ragini (2019)

reports that by 'fraze.it', learners can enjoy a wealth of options ranging from specifying the verb tense of the concordance lines to the type of the sentence, selecting the range of the source text such as UK or US which allows them to see geographical variations of the use of words and phrases and additional features such as a thesaurus, dictionary and a translation utility.

Further to that, dos Santos et al. (2018) report on the use of a combination of webtools in which YouGlish, a corpus utility that analyses the YouTube database to offer the user spoken concordances of the search item, and Fraze.it. The "recording yourself" (dos Santos et al. 2018) utility provide the user with hyperlinks to Fraze.it whereby the learners could extend their exposure to the searched item by reading related excerpts from a variety of sources, mainly articles from the press (Ragini 2019). Further to this, limited effort put into enrichening the literature in the possible insights into using corpus-based Web tools to harvest pedagogical gain, this paper focuses solely on 'fraze.it' and investigates the possible horizons it can offer to English language teaching (ELT) with a specific focus on DDL and autonomous learning and a wider outlook on the Web tool 'fraze.it".

3 Methodology

3.1 The problem

The present study was driven by a number of interrelated problems some of which were observed to be concurrent with different learners. Even though the teacher and the institutionally required teaching methodology remained almost the same over a period of two years, learners seemed to be having great difficulty adapting to a higher level of the grammar course called 'language awareness' (LA). LA is comprised of four discrete levels each of which is taught for eight weeks. When a learner fails one level of the course at the end of this eight-month period, he can re-take it in the following two-month period, which might cause accumulated fatigue and frustration in learners changing their overall attitude towards the subject for the worse. Having passed LA at level one and two, or being placed into level three of LA right in the beginning, learners who were native speakers of Turkish and learning English as a foreign language/for academic purposes were observed to be struggling through the cognitive challenges posed by both the curriculum and the institutionally-adopted teaching methodology which imposes a distorted perception of learner autonomy. In this perception of learner autonomy, learners are required to start producing written language in the academic form by applying some techniques for paraphrasing original statements, which is an essential practice in citing authors and sources while writing academically, after being introduced to the technique in a plenary lasting no more than 15 min or so. Additionally, teachers are suggested not to deliver a class, but rather ask the learners to do some exercises and use discussion forums on the institutional learning management system (LMS) to share their answers and get feedback on their posts while the teacher is supposed to comment on individual replies to a thread opened by the teacher himself. However, having mastered English grammar at some level, either at high school or in LA2, learners seemed to have had little or no interaction with academic written register, let alone reading an academic statement and then

paraphrasing it without reducing the original meaning. As part of their past learning habits, they usually expect the teacher to demonstrate example sentences and perform the required techniques, which is what teachers are de-suggested by the academic coordinator. This disparity between the expectations of the learners and the actual implementation by the teachers frequently result in undesirable consequences such as communication breakdown between a teacher and learners, lagging/thumb-twiddling by learners or learners dropping the course, thus increasing the number of failing learners.

3.1.1 Limitations

This study bears some certain limitations. First of all, the findings represent only the realities of a relatively limited group of learners, thus making them not eligible for generalizations of any sort. The methodology applied and the research instruments utilized, along with fraze.it as a web tool, were highly supported by the technological infrastructure that was ubiquitous in the research environment, which other researchers may not be able to find at especially technologically deprived institutions. The sample was comprised of young adults studying at a tertiary level prep school who were conveniently available to the researcher in his own work sphere and they were highly motivated to pass a course; therefore, the discussion can be meaningful for those who are familiar with the advantages and disadvantages of similar contexts. The study may fall short of conveying any understanding about the possible long-term effects of the intervention, SAR, as it was carried out within a relatively limited amount of time due to some local time constraints. The study rests upon a number of presuppositions. Besides, because of institutional restrictions, it was not possible to administer a placement test to determine the proficiency levels of the participants in each group, which entailed the researcher to consider the participants to be similarly proficient in English. The difference between learner styles and different strategies which might have possibly been applied by some learners had to be ignored. The researcher avoided any social interaction with the participants so as to eliminate any positive affective variable interfering with the results, which might eventually cause some frustration in some learners. Learner motivation as a variable had to be ignored during both the data collection activities and the discussion of the findings due to time constraints.

3.2 The purpose

The present study aims to provide the learners taking LA3 with mentoring and guidance by the teacher so that they can self-discover target forms and patterns used for paraphrasing designated by the curriculum as paraphrasing techniques through the use of online concordancing software 'fraze.it'. To achieve this, the present study aimed to seek answers to the following research questions:

1) To what extent can Simulated Academic Reading help learners better understand the use of target grammatical forms in paraphrasing?
2) How can the online concordancing utility 'fraze.it' help learners write grammatically more correct paraphrases?

3.3 Sampling and the study design

The intervention was planned and scheduled on the same eight-week timetable as that of the department due to institutional restrictions. The researcher, who was also the only teacher doing LA3 throughout the term in which the intervention was implemented, had three LA3 classes two of which were randomly selected for the present study. The learners comprised mainly of either first-semester students or those who failed LA3 in the previous semester. A small number of them were those who passed LA2 at the end of the previous semester. The sampling technique was therefore convenience sampling. Group A was the experimental group (EG) with 32 learners, and group B was the control group (CG) with 30 learners. A pre-test was prepared at the beginning of the study but was not applied until week three. The purpose of delaying the test for two weeks was three-fold: firstly, the researcher had to get the students up and running for the new term. They needed a smooth beginning to help them keep going. Secondly, the researcher did not want to risk being complained about by the students to the administration, which would eventually cause the premature termination of the study. Lastly, the researcher had to wait for permission to be granted by the committee of research ethics. The post-test was administered in the seventh week of the study. It followed the same pattern as the pre-test but included different questions as the application of an identical test would place the findings under suspicion because there were only four weeks between the two tests. Both the EG and CG were given the same tests as pre and post-tests.

   The two groups differed in terms of the instruction they received from the same teacher even though the existing set of teaching materials, designed in-house and accessed via the LMS, was used in both the EG and CG. The researcher did not develop new teaching materials specific to this study. As of week-one of the study, the experimental group (EG) received constant SAR guidance inserted into the regular teaching. Each lesson was divided into two phases. During the first phase of each lesson, the teacher led plenaries in which he introduced the topic to the students. The online corpus database fraze.it was frequently referred to by the teacher, and the students had hands-on experience with the system using their laptop computers. They were provided search keys which helped them utilize the system to produce results that could endorse their understanding of the topic of every lesson. In the second phase, the students were provided with explicit guidance. The teacher projected his computer to the whiteboard and did a number of exercises by frequently referring to fraze.it so that the students could see the same use of the language in a number of authentic sentences in the form of concordance lines. Some of these concordance lines were dwelled upon to let the students compare these to what the teacher himself wrote depending upon his grammar knowledge and intuition. Later, the students were asked to do the remaining number of exercises alone and refer to fraze.it to test whether their use of the target language form is correct or not. By doing this, students were first asked to develop hypotheses about how the target forms are used and test their hypotheses by conducting keyword in context (KWIC) searches on fraze.it. While the students were busy testing their hypotheses, the teacher monitored the students and visited individuals or pairs of students collaborating on a difficult exercise to deliver one-on-one feedback upon request. This frequent reference to concordance lines generated by fraze.it was expected to help the students in the EG shape and reshape their intuition in the target language

(L2). As to the control group (CG), the students were taught in the way the academic coordination considered the best fit for the program. They were first asked to listen to the teacher explain the topic in short plenaries, do the exercises in the course materials alone, and then post their answers to the exercises in the course materials in the form of replies to the threads in discussion forums opened by the teacher. The plenaries lasted no more than 10 min and they were shaped around brief talks on the topic of each lesson delivered by the teacher. The rest of the class time was used on a discussion forum. The teacher typed feedback to student responses. As the students were working on the same exercises, their mistakes were quite similar to each other. For this reason, the teacher typed one reply as feedback to different posts by different students; therefore, the students were able to rely on solely the sentences written by the teacher.

3.4 Ethical issues

Prior to the commencement of the data collection procedures, the researcher applied to the ethical committee to get academic permission to carry out the quantitative and qualitative data collection. The qualitative data collection procedures were preceded by the acquisition of the learners'/participants' consent through a consent form prepared in Turkish. This consent form and the survey questions had previously been subject to meticulous scrutiny by the committee of research ethics ubiquitous within the institution where this study was conducted. In addition to these the researcher corresponded with the people in charge of the online concordancing platform 'fraze.it' and asked to be granted the permission to use the name of the website in the present study, shortly after which an affirmative response was given by the authorities of 'fraze.it'.

4 Data collection

The data were collected in two phases. The quantitative data were collected through the application of a pre and a post-test. The pre-test was administered at the beginning of the third week of the study so that the learners could be provided with an orientation for the new course they would attend as they were either completely new to the methodology applied in the department or barely passed LA2 in the previous academic year. With this being the overall situation, the researcher had to prioritize getting the learners familiar with the new content and genre in order to eliminate any possible affective variables, other than the techniques and methodologies applied, which would jeopardize the reliability of the findings or cause any misinterpretations. Following the orientation instilled into the normal teaching, the learners were found to be ready to take the pre-test. The application of the intervention was not suspended, though. The pre-test featured a similar pattern to that of the official test and assessed against a similar grading scheme to which learners were introduced prior to the application of the pre-test after the orientation. Following the seven-week SAR intervention both the EG and CG took a post-test that followed a similar pattern to that of the pre-test. To better understand the effect of SAR the questions included in the test were representatives of the same techniques included in the pre-test. The learners were asked to paraphrase four different statements using four different techniques in four different parts in both the pre and the post test. Table 1 demonstrates the skeletal structure of the pre and post-tests.

Table 1 The Skeletal Structure of the Pre and Post-tests

Part	Skill to be performed	Number of questions	Points available	Grading scheme
A	Active to passive conversion	4	4	Award 4 points if no problems. Deduct • 2 points for incorrect A-P conversion • 1 point for incorrect object – subject inversion • 1 for incorrect use of an agent phrase 1 point for any spelling mistake
B	Passive to active conversion	4	4	Award 4 points if no problems. Deduct • 2 points for incorrect A-P conversion • 1 point for incorrect object – subject inversion • 1 for incorrect use of an agent phrase 1 point for any spelling mistake
C	Paraphrasing by changing the word class	4	4	Award 4 points if no problems. Deduct • 2 points for a wrong word • 2 points if the meaning is faulty 1 point for any spelling mistake
D	Paraphrasing by reduction/ expansion of relatives	4	4	Award 4 points if no problems. Deduct • 2 points for an incomplete reduction/expansion • 2 points if the meaning is faulty 1 point for any spelling mistake

All original statements used in the pre and the post-tests were taken from 'fraze.it', and all of the 16 statements were completely different from each other in terms of their grammatical (verb tense, modals, vocabulary etc.) or syntactical constructions (simple, compound or complex). In part A, test takers were asked to paraphrase the original statements by converting them to passive while they were required to the opposite in part B. In part C, the test takers were given statements bearing bolded words and they were asked to re-write the original statement by changing not the bolded words but the word class of them without changing the meaning of the words. Finally, in part D, learners were required to reduce the relative clauses in two of the four questions one with an active verb and another with a passive one, and identify and expand the relative clauses in the remaining two one with a passive and the other with an active verb. The scores were calculated against a grading scheme of the researcher' own device which is similar to the departmentally used one. The guidelines to the assessment procedures are also shown in Table 1. With all questions included in the pre and post-tests being open ended, the grading scheme was designed in a point-by-point fashion to ensure a consistent marking. The students were also instructed not to share any personal information other than their nine-digit student ID numbers, and the papers were blind-marked by the researcher.

The qualitative data were collected through the application of a semi-structured online survey in which learners were required to provide written answers to four open ended questions. For this purpose, the online survey generator 'surveymonkey.com' was utilized. A weblink to this particular survey named "the fraze.it survey" was shared with the learners and their responses were collected anonymously. The survey comprised of the following questions:

1) Do you think "fraze.it" helps learners improve their grammar knowledge? If no, why? If yes, how?
2) Do you think "fraze.it" helps you improve your academic writing skills? If no, why? If yes, how?
3) Does reading example sentences help you remember and use correct grammar forms? If no, why? If yes, how?
4) Do you use "fraze.it" outside class while studying English? If no, why? If yes, how?

5 Data analysis

The analysis of the quantitative data collected was administered through the calculation of a paired-sample t-test to see whether the intervention could make a statistically meaningful change for the better in the test scores of the learners in the EG when compared to the CG. The qualitative data, on the other hand, were analysed by means of frequency analysis of the responses provided by the participants of the online survey. These responses collected anonymously were later broken down into discrete plain text files so that they can be analysed for a frequency list that could help reach the common codes emerging in the survey. Each response provided by each respondent to each question were represented a separate file so that the dispersion of these codes could be shown in the analysis.

6 Findings and discussion

The computational analysis of the quantitative findings revealed a statistically meaningful change for the better in the test scores of the EG learners unlike the CG learners. While the mean scores of the EG learners were slightly below 50, the mean score of their post-test performance could go beyond 60 after the application of SAR intervention through active teacher mentoring. The sig. (2-tailed) value was calculated to be,000 which is below the statistical barrier of 0,5. Table 2 shows the statistical representation of the change in the test scores of the EG.

As can be seen in Table 2, the intervention resulted in an observable increase in the test performance of the learners in the experimental group. With attributing the whole credit to SAR and DDL procedures that the learners underwent might well be super-realistic, it should be emphasized that throughout the SAR consultation sessions learners were observed to be somehow captivated by the idea that they can take their understanding of how English works to an upper level all by themselves. The positive reinforcement and reassurance resulting from the guidance and mentoring offered by a more experienced learner of the target language, the teacher in their class who is also a non-native speaker of the language. Considering their teacher a mentor, rather than a knowledge distributor, who previously experienced similar challenges as those that they were going through seemed to have affected their perception of the in-class exercise of learning a foreign language altering the way they perceived the language teacher profoundly. As usual, people ask for advice from others who have experience with what they are about to have to lessen the psychological burden of undertaking something as challenging as writing

Table 2 Paired-sample T-test results of the experimental group

Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	EG_PRE_TEST	46,9697	32	12,67,764	224,111
	EG_POST_TEST	62,2172	32	11,23,747	198,652

Paired samples test

		Paired differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	EG_PRE_TEST - EG_POST_TEST	−15,24,750	866,177	153,120	−18,37,040

		Paired Differences 95% Confidence Interval of the Difference	t	df	Sig. (2-tailed)
		Upper			
Pair 1	EG_PRE_TEST - EG_POST_TEST	−12,12,460	−9958	31	,000

academically, especially right after mastering the grammar of the language at a certain level. Approaching the learners at their eye-level, being able to empathize with them as language learners may well place non-natives teaching a foreign language in and advantageous position when compared to natives. The corpus referencing practice which is highly facilitated by the use of a web tool can help compensate for the lack of native intuition for non-native language teachers which is what natives innately come with.

Eventually, using a web application such as fraze.it might easily become a win-win situation for both the language learner and the teacher himself. Language teaching and learning can become a research and discovery process rather than a one-way delivery of knowledge, which would be enjoyed by both stakeholders of the classroom environment. Without having to cope with psychological burden of being tutored by a superior owner of knowledge, learners can go for a self-paced construction of knowledge for their own sake with the teacher being by their side ready to offer his wisdom as support rather than confronting a crowd of learners all looking at the same direction and being addressed at a distance within the same room. The new small-scale research group mentored by the teacher as an active participant in lieu of a supervisor pointing out what is wrong and what is right on a constant basis as a so-called embodiment of active feedback can offer the learners a fun and safe ride towards and throughout the uncharted territories of the target language. Safeguarded, by not the teacher himself but his wisdom and experience, learners can be granted the valuable opportunity to explore these unknown areas by building up memorable experiences that can eventually add up to their overall proficiency levels.

With every step taken into the existing curriculum, no matter the content, teachers and institutions might well benefit from the feedback generated by fluctuations in the

learner performances. DDL applications through webtools like fraze.it can inform decision making procedures for syllabus designers. The language produced by learners in DDL-led language tasks in which learners are first exposed to concordances in which the target forms occur and then asked to produce similar statements can help language schools and curriculum designers decide on how to shape/re-shape the existing curriculum so that they can get the best out of the current population of learners whose linguistic needs may vary greatly when compared to others in a previous term/academic year. As individuals, language learners may have different needs at different levels and different learner characteristics which require different approaches. However, nourished by the learners' basic ability to read online corpus referencing might take the learner efficacy to a higher level as no learner in a language class will need to wait for another one. Every single learner could pace at their own speed, enlivening and making being a part of a class, or a language community in a broader sense, more meaningful for themselves.

Another effect of the DDL procedures actuated through the use of a web tool can be the visual stimuli provided by the concordances shown in the software and a chance to discuss what is learned and what is read may well contribute to the retention of new forms and structures constructing the meaning. By offering a sentenced-based sort of reading practice, the DDL-active use online corpora can deepen learners' insights into how the target language works. The positive atmosphere produced and maintained by the teacher-guided collaboration can underpin learners' development of fairer L2 selves who are capable of writing academically. This might even lead to an enhanced spoken performance as reading for writing might nourish the cognitive mechanisms that are responsible for oral language production, which can well be the pivotal attraction of further research.

Nevertheless, unlike the EG learners, the CG learners demonstrated a relatively subtle increase having received traditional grammar instruction without SAR intervention. While their pre-test mean scores were slightly above 48, they could score at an average of 50 in the post-test. Even though the two groups participating in the study performed almost equally in the pre-test, the EG learners could improve themselves much more when compared to the CG learners. Table 3 shows the statistical comparison of the CG pre and post-test scores.

As can be seen in Table 3, the sig. (2-tailed) value of the analysis of the pre and post-test scores is very close to the statistical barrier of 0,5. Much as the calculation depicts a statistically meaningful difference between the test scores of the CG learners, the difference is so small that it can be ignored, or the credit could be attributed to factors such as intrinsically being motivated to pass a course rather than the effectiveness of the traditional methodology applied. This eventually places the intervention applied in the EG to a better position when compared to the old-school methodology imposed by the authority. Comparing the difference between the pre-test mean scores of each group could give a clearer visual on the extent to which the SAR intervention could prove to be effective. Surprisingly enough, the EG learners scored lower in the pre-test than the CG learners by 2 points on average. Devoid of the DDL intervention through active teacher mentoring, though, they seemed to be able to show very little progress when compared to the EG learners. The disparity, which one could easily call a chasm, between the EG-post-test performance and that of the CG accentuates online corpus referencing as a highly effective solution for possible shortcomings of traditional

Table 3 Paired-sample T-test results of the control group

Paired samples statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CG_PRE_TEST	48,2244	32	16,38,578	289,662
	CG_POST_TEST	50,0559	32	12,66,608	223,907

Paired samples test					
		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	CG_PRE_TEST - CG_POST_TEST	−183,156	14,99,603	265,095	−723,821

Paired Samples Test				
		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	CG_PRE_TEST - CG_POST_TEST	357,508	-,691	31	,495

language pedagogy which is void of a mentoring role model with a dependable amount of experience with the target language but not necessarily knowledge to dispense seems to need no explicit euphuism of expression. Tutored but not guided, addressed but not supported the CG learners did have to cope with the cognitive challenges all alone which resulted in a widespread failure reflected by the post-test scores. With the teacher first delivering linguistically rich talks on how the grammatical forms and structures can construct the meaning in a written piece of text and later requiring, but not asking, the learners to produce correct language at a distance seemed to double the challenges of the already difficult task. Even though learners were required to produce academic statements and share them to get feedback via discussions forums as part of in-class activities, the lack of teacher mentoring and a sense of collaboration might have been given a jolty ride throughout the syllabus. Supervised by the teacher, the CG learners might have been intrigued and afraid of making mistakes, which is actually a good way of testing what is learned or whether it is learned. As no active cooperation with the teacher who is apparently more experienced in the language took place, learners might have needed to emotional challenges of being overseen. This could also cause false perceptions of the learning atmosphere and might stop learners from developing linguistic self-confidence.

To further summarize the DDL effects caused by the active guidance of the teacher using fraze.it as a source of reference for linguistic research in the collaborative sense, the implications of the above analyses (Tables 2 and 3) are two-fold: first of all, learners from a variety of educational backgrounds sharing the same kind of difficulty in analysing and synthesising language output in an EFL setting might well be able to overcome the

cognitive challenges posed by curricular approaches putting an excessive amount of emphasis on learners' taking much of the responsibility of their own learning through positive reinforcement that comes with the effective and efficient embellishment of teacher guidance with the use of technology. A SAR approach to guiding learners through web-based concordancing tools such as 'fraze.it' may efficiently facilitate the constructive progression of leaners' own efforts to self-discover and regulate their pace in language classes. The sense of exploration and the effort put into noticing the pattern forming the expressions within a specific genre can contribute positively to the establishment of learner autonomy in language classes and boost learner achievement. As demonstrated by the statistical comparison of the in-group performance of both the EG and CG learners in the pre and post-tests, learners do much better when they were granted the opportunity to explore corpora for pedagogical gain with the assistance and guidance of the teacher. Within the new corpus-based atmosphere the learners are no more passive note takers but rather research participants who can self-diagnose their needs and either find ways to find solutions or ask for guidance. And the teacher, being actively guiding the self-paced studies of learners, may well ensure that learning of the target forms in a grammar course can take place at individual levels, by involving every single individual into the learning/teaching activities without letting them feel lost.

The positive wind of change in the EG was also supported by the responses of the participants in an online survey prepared and applied via the web survey tool surveymonkey.com. The survey entitled 'the fraze.it survey' was comprised of four open ended questions. The students were asked to reply to the survey on voluntary basis. The responses were collected anonymously; therefore, each respondent was given an ordinal number (1–32) as a means of identification which would help understand the dispersion of the common codes among the respondents. After the collection of the responses, the researcher sorted the responses by question and respondent number and carried out a frequency analysis on AntConc to see the most frequent words shaping the overall trend in the responses to each of the four questions. Words occurring at a minimum frequency of three were selected. Following this frequency analysis N-grams were calculated using the same linguistic analysis software to reach collocations forming the common codes. These codes were then grouped in terms of similarity and shown in tables separately. Each line in Tables 4, 5, 6 and 7 demonstrates common codes emerging in the responses and the respondents identified by ordinal numbers. This helps understand the number of people who have similar thoughts reflected in their responses to each of the four questions in the survey. The common codes were then interpreted to gain a deeper insight into the overall pattern of thought and approach to the use of fraze.it among the respondents. Table 4 shows the common codes emerging in the responses to the first question of the survey.

Q1. Do you think "fraze.it" helps learners improve their grammar knowledge? If no, why? If yes, how?

According to the responses to this question, almost all of the participants agreed with the idea that using 'fraze.it' contributed to their grammar studies, changing their performance for the better (Table 4). With a number of the participants expressing that the software and the approach is helpful in terms of improving their overall grammatical and writing competencies, many others said 'fraze.it' helped them improve their understanding of the forms and meaning constructing the language in academic statements. The multi-sense construct of the DDL applications through fraze.it as a

Table 4 The analysis of the Responses to Question One of the Survey

Common codes	Respondents
fraze.it/from fraze.it/fraze.it helps/fraze.it gives/ I can reach by fraze.it/I use fraze.it	13, 11, 21, 1, 4, 10, 28, 5, 16
Yes because	14, 32, 18, 22, 7, 28, 17, 11, 4, 29, 25, 1, 6, 13, 16, 9, 23, 21,
It is (really) helpful/useful	13, 12, 7, 16
Useful for/helpful for/develop my/ your academic writing Improve my/your academic writing	15, 17, 2, 27, 12, 31, 11, 23, 12, 6, 15, 12, 4, 28
I can use easily I can find	31, 23, 29, 11, 6, 30, 16, 12, 1
A lot of academic sentences/articles/words	31, 11, 1

source of reference, enabling them to corroborate the audial stimuli by the teacher with effective-immediate visual endorsement in the form of concordances, was represented to have found a solid establishment among the EG learners. Acknowledged by the participants, the fraze.it offers an easy-to-use solution for a better understanding of individual forms all at once clearly organized without needing to be weeded out.

Q2. Do you think "fraze.it" helps you improve your academic writing skills? If no, why? If yes, how?

As shown in Table 5, almost every participant responded affirmatively, agreeing with the idea that using online corpus data-bases such as fraze.it can better contribute to their writing performance as they allow users to see many different examples all at a single click of a button. Online corpora is, therefore, considered by the participants of the survey to be a painless vehicle that gives them a smooth ride from grammar to writing. The conversion of one skill to another can be an issue in language classrooms, especially where the curriculum features separate-skill courses in contrast to an integrated approach utilizing receptive skills as a source for input. Mentoring of a teacher underpinned by solid representation of native intuition in the form of concordances, on the other hand, is capable of making up for possible weaknesses caused by the absences of access to naturally produced forms of language. Webtools such as fraze.it can award language learners comfort and convenience of having a consultant with a well-trained native intuition in the form of computer-generated lines bearing the target form that they attempt at using properly.

Table 5 The analysis of the responses to question two of the survey

Common codes	Respondents
Yes/yes because//yes, I do/Yes it is/Yes, we see/learn/read/remember/use	4, 14, 15, 17, 18, 20, 31, 32, 13, 23, 26, 1, 25, 6, 21, 28, 16, 22, 2
No, because/no I/I don't/ not exactly/ really/fully	19, 29, 30, 9, 1, 24, 9, 2, 24,

Table 6 The analysis of the responses to question three of the survey

Common codes	Respondents
Yes Yes because Yes it helps Yes I use Yes when I have an exam/ don't know/remember	4, 26, 32, 22, 23, 7, 15, 13, 31, 20, 25, 18, 17, 24, 9, 21, 6,
No No, because	14, 19,30
I usually/always/sometimes/just use fraze.it I use/want to use fraze.it	9, 31, 25, 23, 17, 16, 24, 1, 17, 22, 1, 12, 22, 16, 13,

Q 3. Does reading example sentences help you remember and use correct grammar forms? If no, why? If yes, how?

In connection with the second question, the third one seeks an insight into the way the corpus referencing sessions called SAR configure the way the learners utilized their reading ability to support their written language production capability (Table 6). The responses to this question took an affirmative tone by and large. Learners seemed to count on the new technique as a self-regulated endorsement for retention of the newly-studied grammar forms through practical referencing provided by the anytime-anywhere nature of the online corpus database 'fraze.it'. On any hand-held device capable of broadband Internet connection, learners can exercise their will to retrieve concordance lines and rely upon the emerging pattern governing the meaning in a variety of contexts to self-sustain their learning. The visual stimuli that can be found in the concordance lines promotes the recollection of the correct usage in the form of linguistic memories. These memories coming together can aid learners while putting language down on a computer or on paper. The handling of the concordance lines by implementing filters can enhance the interaction with the data shown in the computer monitor prompting the user incorporate multiple senses to facilitate retention.

Q4. Do you use "fraze.it" outside class while studying English? If no, why? If yes, how?

One should not expect the effects of any novelty applied in a language classroom to be stranded within the walls of the room where learners and teachers meet (Table 7). Once it takes effect and is met with respect and trust, an innovative approach to

Table 7 The analysis of the responses to question four of the survey

Common codes	Respondents
Fraze.it helps/shows me/us to learn Yes, because We can learn, use	1, 27, 30, 21, 11, 25, 24, 1, 12, 28, 4, 11, 9, 15, 17, 21, 5, 10, 24, 31, 11, 10
No, because I can't/don't	18, 19, 20, 3, 28

language learning can find its way beyond the school premises and offer freedom and mobility to learners during their self-directed studies. This could also bear a life-long learning aspect and can morph into a learning habit in the long run. The last question of the survey sought an understanding of the impact of the SAR intervention on the self-paced learning habits of the participants. The responses to the fourth question revealed the fact that the SAR intervention altered the home studies of the learners in the EG to a great extent. It is also possible to say that 'fraze.it' was used by the EG learners as a source of reference outside the class too. This might have resulted from the fact that the new technique was internalised by the students as a means of improving their exposure to correct forms of the language used in academic texts. The guidance and wisdom offered by the teacher can be instrumental in transforming conventionally passive receivers of linguistic knowledge into active explorers who can apply effective techniques to search for, sort out and utilize information using the technology close at hand. The incorporation of the Internet into one's personal educational practices and efforts can therefore help establish self-confidence in learners and nurture good learning habits decorated with twenty-first-century learning skills. The consolidation of multiple competencies to develop an able learner-self is considered to be the part and parcel of the twenty-first century pedagogy. Language learning backed up by computer literacy skills professes an idealized image of the modern individual who is capable of accessing, analysing and synthesizing information wherever and whenever needed. As shown by the common codes emerging in the responses to the fourth question of the survey, by making active use of fraze.it, learners can proceed through any designated curriculum, regardless of the philosophy underpinning how English is taught, at a self-regulated pace autonomously referring to the Internet itself as a tutor. Without needing an authority to check up on them so that they can succeed, learners can test hypotheses to reach a more profound understanding of the linguistic mechanics of English.

As to how these findings correspond to that of similar studies in the literature, Pérez-Parades et al. (2011) demonstrate a greater success and a more prolific hands-on interaction with corpora achieved by the EFL learners participating their study in the experimental group when the teacher provided effective guidance during online-corpus referencing sessions in class. With their range of web sources visited being wider, and despite the fact that both the control and experimental groups were engaged in corpus referencing, the present study and theirs voice a common emphasis about the effectiveness of the role of the teacher as a mediator between online corpora and learners. The present study can be said to be in the same league as other studies like Gilmore (2009) and Sun (2003) which foreground the importance of guidance provided by the teacher during online corpus referencing even though the present study does not feature any orientation sessions prior to the hands-on experience, but rather the teacher offers on-the-spot and to-the-point assistance on the go. Bernadini (2000, p. 100) reports on the effectiveness of corpus-based pedagogy in translation classes whose focus is mainly on training learners on the "tendencies" rather than categorical rules of grammar, highlighting the need to offer learners a chance to explore the native intuition in a similar vein as this study. As cited in Boulton (2010), Johns (1991) uses off-line linguistic inquiry software to improve academic writing skills of EFL learners by depicting the commonalities in

language use in authentic texts and reports on an observable increase in the way learners perceive and apply new forms into the own writing. Unlike similar studies such as Bernardini (2002); Chambers (2005); Götz and Mukherjee (2006); Kennedy and Miceli (2001); Ma (1994) which make attempts to reflect on the possible advantages and disadvantages of corpus referencing in language pedagogy in general terms, the present study attempts to benchmark a specific online utility, fraze.it, and see how effective it can prove for in-class use by language teachers struggling on strict timetables. To this end, the present study offers a practical solution to language educators and learners by drawing extra attention to possible handicaps that might emerge.

7 Conclusion and implications for future research

To sum up, a combination of internet and computer technologies and corpus referencing can facilitate learners' understanding of new forms and help teachers guide learners throughout uncharted territories of the target language and different genres. This constructive progression of self-regulated exploration of the target language through a sentence-based reading of academic texts in the form of concordance lines focusing on certain forms and structures - simulated academic reading- can provide learners with a valuable opportunity to build up their own linguistic while facilitating the mentoring of the teacher by allowing more time for individual reading by learners rather than writing and posting excessively full of grammatical mistakes. It can prove to be utterly instrumental in EFL settings where the teacher is a non-native speaker of the target language, providing him with the native intuition which they might fully lack or need to further train. As non-native speakers teaching a foreign language are not born into the language their cognitive mechanisms might not be so strong enough to provide instantaneous on learner use and/or errors in using the language. Therefore, learners in EFL setting, particularly with specific focus on academic writing, might enjoy the safer dimensions of language instruction as they would be exposed to language produced by natives of the target language, if not, native like expertise that can be found in vast compilations of language easily accessible via online concordancers such as 'fraze.it, eventually yielding relatively more favourable learning outcomes. This confidence in being able to access, evaluate and use or re-use information may help transform learners who are used to being passively tutored, supervised and evaluated into ones with a level of self-awareness about how they learn better by employing their ability literacy and computer literacy skills in collaboration to achieve learning goals for themselves.

Last, but not least, we hope that this paper will inspire future researchers to investigate the effect of SAR under different circumstances and in different contexts. It also seems to be valuable to express that similar studies may need to be undertaken so as to reach a better understanding of how and to what extent SAR is capable of fostering autonomy in learners, and to see the extent to which the impact made by SAR could last in the long run. Furthermore, studies in a broader sense might be needed to see whether SAR can form the basis for curriculum design, and if this technique can replace a whole methodology at an institutional scale. Finally, SAR is hoped to open up new horizons for researchers in English Language teaching and ignite similar applications for language pedagogy in general.

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