



**LITERATURE AND SECOND LANGUAGE VOCABULARY
LEARNING: THE ROLE OF TEXT TYPE AND TEACHING
APPROACH**

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3 LITERATURE AND SECOND LANGUAGE VOCABULARY LEARNING: THE ROLE
4 OF TEXT TYPE AND TEACHING APPROACH
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8 ABSTRACT
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11 This study considers the relative benefits for vocabulary learning of exposure to two types of
12 texts, literary or non-literary, used with two teaching approaches. These approaches were
13 termed *functional* and *creative* respectively. In the former, learners' attention was drawn to
14 factual information and linguistic features in order to develop their linguistic knowledge. In
15 the latter, the aim was to stimulate learners' personal and emotional response, by drawing
16 their attention to the text's emotional content and how language was used to express
17 meaning. We analysed data from 160 learners of French in eight schools in England. Learners
18 in four schools studied French poems and those in another four studied French factual texts.
19 Teachers in each text condition employed *functional* and *creative* methods of exploitation
20 within a counterbalanced design. We assessed two types of vocabulary knowledge at pre- and
21 post-test: meaning-recall of vocabulary contained in the texts, and learners' general
22 vocabulary size. Our results indicated learning gains across both text-types. There were
23 however important interactions between text-type and teaching approach and between text-
24 type and the order in which the teaching approaches were used. Finally, we consider the
25 implications of these findings for understanding of vocabulary learning through literature and
26 for classroom practice.
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48 *Keywords:* literature; poetry; vocabulary; reading; French
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51 INTRODUCTION
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54 This study investigated the impact of exposure to French poems on the vocabulary
55 development of high school learners of French, compared with the impact of non-literary
56 texts. It was motivated by the fact that, in many educational contexts, the use of literary texts
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3 is viewed as a key part of the language curriculum. This is equally true of England, the
4 context of the present study. Nevertheless, the impact of using such materials on school-aged
5 learners' language development has received little research attention, as most studies have
6 focused on adult language development (e.g. Kim, 2004; O'Donnell, 2009; Yang, 2001), or
7 on affective responses to literature (Paran, 2008) rather than on its impact on language
8 acquisition. While affective responses are of course important, in school settings linguistic
9 outcomes are likely the prime focus of teachers and learners alike. In England, as elsewhere,
10 improving learners' vocabulary knowledge is a key concern (DfE, 2022). In this study,
11 therefore, our first objective was to compare vocabulary learning gains from reading literary
12 texts with gains from factual texts. To our knowledge, this is the first study to make a direct
13 comparison between those two text-types with younger, school-based language learners.
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29 Our second objective was to explore whether the pedagogical approach used with
30 these two text-types affected their impact on vocabulary learning. This is important because
31 while much adult reading of foreign language literature may take place outside of the
32 classroom in a fairly-self-directed manner, in school settings it is most likely to occur under
33 the close direction of the teacher. While there is agreement that **how** literary texts are used is
34 crucial (Paran, 2008), there is an ongoing debate about the most appropriate form of
35 deployment. We are not aware of previous studies that have explored empirically the impact
36 of teaching approach on outcomes from studying literary texts, nor any that have examined
37 both text-type and teaching approach in one investigation. Understanding the impact of both
38 factors on language outcomes is essential not only to guide pedagogical and curricular
39 decision-making, but also to enhance understanding of vocabulary learning through literature
40 on a theoretical level. The study therefore makes a novel and significant contribution not only
41 to the under-researched area of literature and school-based language learning but also to the
42 field of instructed vocabulary learning more broadly.
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LITERATURE REVIEW

Pedagogical models for using literature in language teaching

How literature should be used in language classrooms (rather than as extensive reading outside the classroom, as for example, in Pellicer-Sánchez & Schmitt, 2010) has been the subject of discussion for a number of years. Different models of, or approaches to, literature and language teaching are outlined in Bobkina and Dominguez (2014) and elsewhere (e.g. Bloemert et al., 2016). While these models are varied, two broadly contrasting teaching approaches can be extracted from them: those in which the focus is primarily on developing learners' linguistic knowledge and skills, and those in which more person-focused development is the aim, such as cultural knowledge or the readers' personal involvement with the text. For example, in the Personal Growth Model or approach (henceforth, approach) outlined in Carter and Long (1991) alongside a Language Model and a Culture Model, learners undertake activities through which they relate the text to their personal experiences and express their feelings and emotions about what they have read. Learners themselves also seem to be aware of a distinction between different approaches to studying literature; for example, Tsang et al. (2020) found that high school learners' perceptions of the benefits of studying literature crystallised around language development and personal development respectively. Of course, the two are interrelated; to engage on a personal level learners need to draw on their linguistic knowledge, especially vocabulary knowledge, opening up the possibility of incidental learning occurring. How much vocabulary is learnt from literary texts compared with factual texts, and whether such learning varies according to teaching approach used, are issues which to our knowledge have not been explored in research previously.

A rare study that partly explores those questions, Maxim (2002), examined how much vocabulary knowledge can be gained through reading literature and how that compared with vocabulary learning from non-literary material for university beginner learners of German in

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3 the US over 10 weeks. Learners in a literature group read a novel in class which was at a
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5 linguistic level above their proficiency level. Classroom activities used with the novel
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7 included story re-tell, text analysis and interpretation. Although not explicitly stated by
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9 Maxim, these activities seemed to have had some focus on personal and cultural
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11 development, alongside offering opportunities for language enhancement. A comparison
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13 group read passages from the textbook in order to practise vocabulary and grammar. Both
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15 groups completed vocabulary tests before and after the intervention. These required learners
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17 to give English definitions for selected vocabulary items in reading passages (called a
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19 ‘Definition’ task) and then make some sort of evaluation about each item, for example,
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21 whether it had a positive or negative association or what its function in a sentence was
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23 (termed the ‘Functional’ task). There were no significant differences in how much progress
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25 each group made; substantial vocabulary learning occurred for both, although the literature
26
27 group made the most progress on the Functional task and the textbook group on the
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29 Definition task. This raises two questions: whether different text-types might lead to the
30
31 development of different kinds of vocabulary knowledge, and whether it was the literary text,
32
33 or the teaching approach used, that was most responsible for the vocabulary gains seen in
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35 Maxim (2002). To better understand those issues, theories of second language (L2)
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37 vocabulary learning in instructed settings need to be considered, which we turn to next.
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48 VOCABULARY LEARNING IN INSTRUCTED CONTEXTS: TEXT-TYPE AND 49 TEACHING APPROACHES 50 51

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53 The learning of vocabulary in instructed second language contexts is enhanced,
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55 according to Schmitt (2008), by “virtually anything that leads to more exposure, attention,
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57 manipulation, or time spent on lexical items”; in other words, by anything that brings greater
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59 “engagement” (p. 339). Definitions of ‘engagement’ are varied but in relation to L2 learning
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3 it has been conceived of as “a state of heightened attention and involvement” which includes
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5 interacting cognitive, behavioural and emotional aspects (Philp & Duchesne, 2016: 51). In
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7 this section we consider engagement first from the perspective of ‘attention’ in relation to
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9 different text-types. We then consider how different teaching approaches or learning
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11 activities might lead to different levels of ‘involvement’ on the part of learners.
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15 *Text-type: attention and noticing*
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18 Formulated originally to account for the acquisition of grammar, Schmidt’s (1990)
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20 Noticing Hypothesis has also been drawn upon to argue that for vocabulary learning to occur,
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22 learners have to ‘notice’ or ‘attend to’ words within the input they receive. That may be
23
24 especially the case for incidental learning, where words are learnt as a byproduct of an
25
26 activity where the focus is on meaning comprehension or communication (Feng & Webb,
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28 2020; Laufer & Hulstijn, 2001; Pouresmaeil & Vali, 2023). Literary texts may facilitate such
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30 noticing, because one of their central features, especially in highly stylised genres such as
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32 poetry, is that language may be used in an unusual, unfamiliar and potentially ambiguous
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34 way. The reader is thus prompted to notice the gap between that novel deployment and the
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36 meaning they have previously attributed to such language (Johnson-Laird & Oatley, 2022). In
37
38 such instances learners have to work harder to search for the possible meaning of the word in
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40 a novel and slightly non-transparent context, causing their reading and comprehension to
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42 slow down and potentially better learning to occur (Lui et al., 2021). For second language
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44 learners, however, especially of a lower proficiency level, it is likely to be important that
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46 comprehension is not slowed down to such an extent that limited learning occurs, and that a
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48 level of ‘desirable difficulty’ is presented to them (Bjork & Bjork, 2011).
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55 Poetry thus offers readers input that “is foregrounded, unusual, and draws attention to
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57 itself” (Hanauer, 2001: 298). Furthermore, attending to form-meaning connections is crucial
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59 for language acquisition (Schmidt, 2001). In literature, form and meaning are closely
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3 integrated – the writer uses language forms to convey a specific meaning, giving learners
4 potentially a more nuanced understanding of language and its use (Paesani et al., 2015). In
5 that respect, poetry stands out because poems can draw learners’ attention to formal aspects
6 of language, including, for example, phonology, “within a meaning construction framework”
7 (Hanauer, 2001: 298), with increased potential for better and richer word learning of
8 vocabulary contained within the text that has been read.
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Other aspects of poetry make its linguistic features more salient or noticeable,
including repetition of lexical items and syntactic structures, and also prosodic elements such
as rhythm and rhyme. These last two have been cited as reasons why target items in poems
have been found to be better recalled than those in prose (Tillmann & Dowling, 2007).
Furthermore, drawing on a term applied to grammar learning but which might also apply to
vocabulary, one might in turn anticipate that poetry prompts “learner-generated noticing”
(Park, 2013, p. 75), whereby the reader notices the use of the linguistic feature themselves
rather than having it being pointed out to them, potentially leading to stronger form-meaning
connections and retention of the feature in question (Liu et al., 2021). Arguably that process
may be similar to what is suggested in Share’s (1995) self-teaching hypothesis which has
mostly been applied to L1 learning but which has been extended more recently to L2 learning
(Li & Wang, 2023).

It is also possible that teachers can help learners become more used to and proficient
at noticing words in the input they encounter. That is one conclusion that can be drawn from
the findings of a study with young beginner learners of French (Woore et al., 2018). Over six
months learners read eight semi-authentic, challenging factual texts (rather than poems).
Those whose teachers encouraged them to look carefully at language in the texts either
through phonics or comprehension strategy instruction saw a much larger growth in general
vocabulary size than learners who just read the texts and answered simple comprehension

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3 questions, without any additional instruction. Given that there was no overlap between items
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5 in the test of vocabulary size (X-Lex, Meara, 1992) and vocabulary in the texts, the
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7 implication (although not stated by the authors of the study) is arguably that the effects of the
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9 instruction spilt over into how learners dealt with other L2 input they encountered. That leads
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11 us to consider the role of teaching approach in relation to different text-types.
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14 15 *Teaching approach: involvement*

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17 While attention and noticing are seen as cognitive aspects of engagement, engagement
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19 is also enhanced through emotional, more personal and experiential involvement (Philp &
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21 Duchesne, 2016) which may in turn aid vocabulary learning (Busse et al., 2020). Some text-
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23 types may facilitate emotional involvement more than others; thus poetry often focuses on
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25 emotions and thinking about abstract concepts (for example, love, loss, and so forth). Both
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27 theory and empirical studies related to the learning of abstract concepts suggest that the
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29 emotional valence of abstract vocabulary helps in its acquisition (Kousta et al., 2011).
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31 Furthermore, the prosodic aspects of poetry help heighten the emotional experience of the
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33 reader or listener, facilitating a simulation of “the emotions and state of mind that the poem is
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35 constructed to convey” (Johnson-Laird & Oatley, 2022: 5).
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41 Factual texts can, of course, also include emotion-related vocabulary, although it is
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43 possible that by using figurative language rather than discussing emotions literally and
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45 directly, poetry can express ideas that in other forms would be ineffable or ‘unspeakable’
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47 (Alexander, 2013) and hence treat challenging and possibly disturbing themes in a more
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49 sensitive way. Nevertheless, the type of response such emotion-related vocabulary elicits
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51 from learners and hence the level of engagement it prompts is in large part influenced by the
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53 teacher, through the pedagogical activities they select to draw attention to particular words or
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55 phrases. They might, for instance, direct learners to consider how words make them feel,
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57 what images, thoughts and emotions they conjure up, and how words are arranged for
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3 stylistic effect as part of that process. By contrast, the teacher may decide to focus more on
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5 orthographic, phonological and syntactical aspects of the text, with a primary focus on form
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7 for its own sake and to aid literal and factual understanding. Such an approach, especially
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9 through tasks such as gap-fills and answering comprehension questions, has been identified
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11 as a common one for literary material in language textbooks in Russia (Calafato & Gudim,
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13 2022) and can also be seen in teaching materials used in England (as in [this example](#)).
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18 As outlined earlier, these two approaches, in relation to literary texts, can be termed a
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20 Personal Growth and a Language Approach respectively (Carter & Long, 1991). While the
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22 latter arguably elicits primarily cognitive involvement with language, the former also brings
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24 with it an affective or emotional dimension, and combining these different aspects of
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26 engagement may increase the depth in which language is processed (Phil & Duchesne, 2016).
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28 In other words, new information in a text is encoded with greater elaboration, a process
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30 which the Depth of Processing framework of Craigh and Tulving (1975) indicates will lead to
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32 better learning and retention.
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37 The Depth of Processing framework was, furthermore, the starting-point for an
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39 influential framework for instructed L2 vocabulary learning, the Involvement Load
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41 Hypothesis (ILH, Laufer & Hulstijn, 2001). According to the ILH, how much vocabulary is
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43 learnt incidentally depends on the degree of ‘involvement load’ induced by different activities
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45 that learners undertake while studying L2 input, typically written texts, without the explicit
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47 intention to learn vocabulary from it. Involvement Load is said to be influenced by three
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49 factors: need, search and evaluate. Need is conceived of as a motivational, noncognitive
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51 aspect of involvement, indicating the extent to which the learner really wants or needs to
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53 understand a word. A higher degree of need is believed to arise from self-generated ‘need’,
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55 that is, learners themselves decide or choose whether to try to understand a word or not,
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57 compared with need directed by the teacher or another external agent. For ‘search’, a higher
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3 load is believed to be induced when the meaning or form of a word is looked up or retrieved
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5 from memory rather than when the meaning is provided (Laufer & Hulstijn, 2001).
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7 ‘Evaluation’ requires making judgements about words and their use, to think about their
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9 “form-meaning connection” (Yanagisawa & Read, 2010: 516), by, for example, considering
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11 how words compare with other words, comparing different word meanings in different
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13 contexts, or combining a word with others to create sentences (Hazrat & Read, 2022). While
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15 evaluation is referred to by Laufer and Hulstijn (2001) as a cognitive aspect of involvement,
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17 it could be argued that tasks requiring learners to make judgements about words might also
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19 introduce an emotional or personal dimension (for example, which word expresses a feeling
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21 most effectively). As such, the emotional element could have a “mediating” and potentially
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23 strengthening effect on cognitive involvement (Philps & Duchesne, 2016: 60), and hence
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25 promote better learning.
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31 While a sizeable body of research has been conducted into the ILH, it has come under
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33 some scrutiny, because of inconsistent findings regarding its predictive power for the learning
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35 of target items. Indeed a recent meta-analysis concluded that the effect of involvement, while
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37 significant, is fairly limited, variable (perhaps because of some vagueness and inconsistency
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39 in how each component has been defined), and moderated by factors such as time on task and
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41 item repetition; different aspects of involvement also have different impacts on learning, with
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43 evaluation being especially important (Yanagisawa & Webb, 2022). Yanagisawa and Webb
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45 also commented, like Hazrat and Read (2022), on the lack of attention paid by research to the
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47 impact of ‘need’. Furthermore, Laufer and Hulstijn (2001) themselves concluded that none of
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49 the various models of motivation they discussed in relation to the ILH shed light on how
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51 much need different kinds of learning activities bring with them. Other motivational
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53 frameworks such as self-determination theory (SDT, Ryan & Deci, 2020) might be more
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55 appropriate for explorations of ‘need’ (Yanagisawa & Webb, 2022), especially in contexts
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3 like England where the present study took place, where instrumental reasons and motivation
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5 for language learning are persistently low and hence where fostering intrinsic motivation
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7 becomes vital (Lanvers & Graham, 2022). Within SDT, intrinsic motivation is driven by the
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9 fulfilment of three psychological needs, sense of competence, autonomy and relatedness
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11 (Ryan & Deci, 2020), respectively: feeling able to undertake a valued and challenging
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13 activity effectively; exercising agency and choice; and a sense of connectedness. Teachers
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15 who are ‘autonomy supportive’ value student perspectives and opinions, provide choice and
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17 open-ended activities (Ryan & Deci, 2020). Arguably, autonomy and relatedness seem the
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19 most relevant to ‘need’ in the ILH sense, in that they could be drivers for why learners focus
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21 on a word or not. They also link to the Personal Growth Approach for using literary texts in
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23 language classrooms, in so far as it advocates stimulating learners’ engagement with the text
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25 by inviting them to relate it to their own experiences, feelings and imagination and to form
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27 their own personal responses to it. Such an approach could, however, also be possible with
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29 non-literary texts, again raising the question of how text-type might interact with teaching
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31 approach.
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38 In summary, while there are theoretical arguments to suggest that exposure to literary
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40 texts, notably poetry, might boost vocabulary learning, the impact on linguistic aspects of L2
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42 learning from studying such texts in class has been underexplored, especially among school-
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44 aged, relatively low proficiency learners. Still fewer studies have directly compared the
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46 impact of literary texts with that of non-literary texts. Whether such impact depends on the
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48 teaching approach employed with the texts has not, to our knowledge, been investigated
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50 either, or whether such an impact varies according to the type of vocabulary knowledge
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52 measured. For example, whether learning is limited to target items in the texts themselves, or
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54 whether it extends to more incidental learning of vocabulary that learners might encounter
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56 beyond the texts being studied. Theories of vocabulary learning also suggest, however, that
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3 certain teaching approaches might be more beneficial than others, with potential advantages
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5 for those that maximise how far learners notice and process words with any depth by
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7 stimulating personal engagement with the text. The current study therefore considered the
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9 following Research Questions, explored among learners of French in secondary schools in
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11 England:
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15 1. How much vocabulary is learnt through literary and factual texts respectively, in
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17 terms of learners' general vocabulary size? To what extent does the amount of
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19 vocabulary learnt depend on the teaching approach used with the texts?
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23 2. How much vocabulary is learnt through literary and factual texts respectively, in
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25 terms of target items contained in the texts? To what extent does the amount of
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27 vocabulary learnt depend on the teaching approach used with the texts?
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32 We hypothesised that learning gains would be greater from literary texts and from a teaching
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34 approach that stimulates personal engagement with texts studied. Our investigation into
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36 whether similar gains would be found for both target items contained within the texts and for
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38 general vocabulary size was more exploratory in nature. We did however anticipate that the
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40 poems would facilitate learning of target items in particular because of the increased noticing
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42 they might facilitate, while Personal Growth approaches might bring some triggering of
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44 'learner-generated noticing' of other input encountered with potential benefits for more
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46 incidental learning that would show in general vocabulary size.
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51 METHODOLOGY

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53 *Context*

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56 The study was part of a larger project that explored creativity and multilingualism
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58 (Authors xxx). One strand of that project considered creativity in the context of the teaching
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3 of French at high school level in England, where levels of motivation for and proficiency in
4 language learning are generally low (Ayres-Bennett & Carruthers, 2019). Rates of vocabulary
5 learning and overall vocabulary size in particular have been characterised as low and lower
6 than in other countries, with learners estimated to learn an average of between 2.7 and 1.73
7 words for every hour of instruction received (Milton, 2006; 2015). While the national
8 curriculum implemented at the time of the study included the recommended study of ‘literary
9 texts in the language [such as stories, songs, poems and letters]’ (DfE, 2013, np.), our
10 observations as teacher educators suggested limited use of such texts by teachers, as Duncan
11 and Paran (2017) also found in a survey of high school teachers in Europe. In order to
12 establish an evidence-base that might inform classroom practice as well as make a
13 contribution to knowledge, the present study explored the extent to which different teaching
14 approaches and text-types might benefit classroom vocabulary learning. Regarding text-type,
15 poems were selected as a *literary* type of text in which ambiguity, appeal to the emotions,
16 unusual linguistic combinations are most marked and which would contrast most sharply with
17 non-literary short articles, that is, *factual* texts. Regarding teaching approach, we considered
18 two approaches that we called the *Creative* and the *Functional* approach respectively. The
19 former was based on the Personal Growth Approach, the latter on the Language Approach
20 (Carter & Long, 1991) outlined earlier (see *The intervention*).

47 *Participants*

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49 From the larger study participant group (Authors xxx), complete sets of data for
50 vocabulary learning (see *Vocabulary tests*) were available from 160 learners of French, aged
51 13-14, across eight schools from a range of geographical and social contexts across England.
52 The majority of learners had been learning French at high school from the age of 11, having
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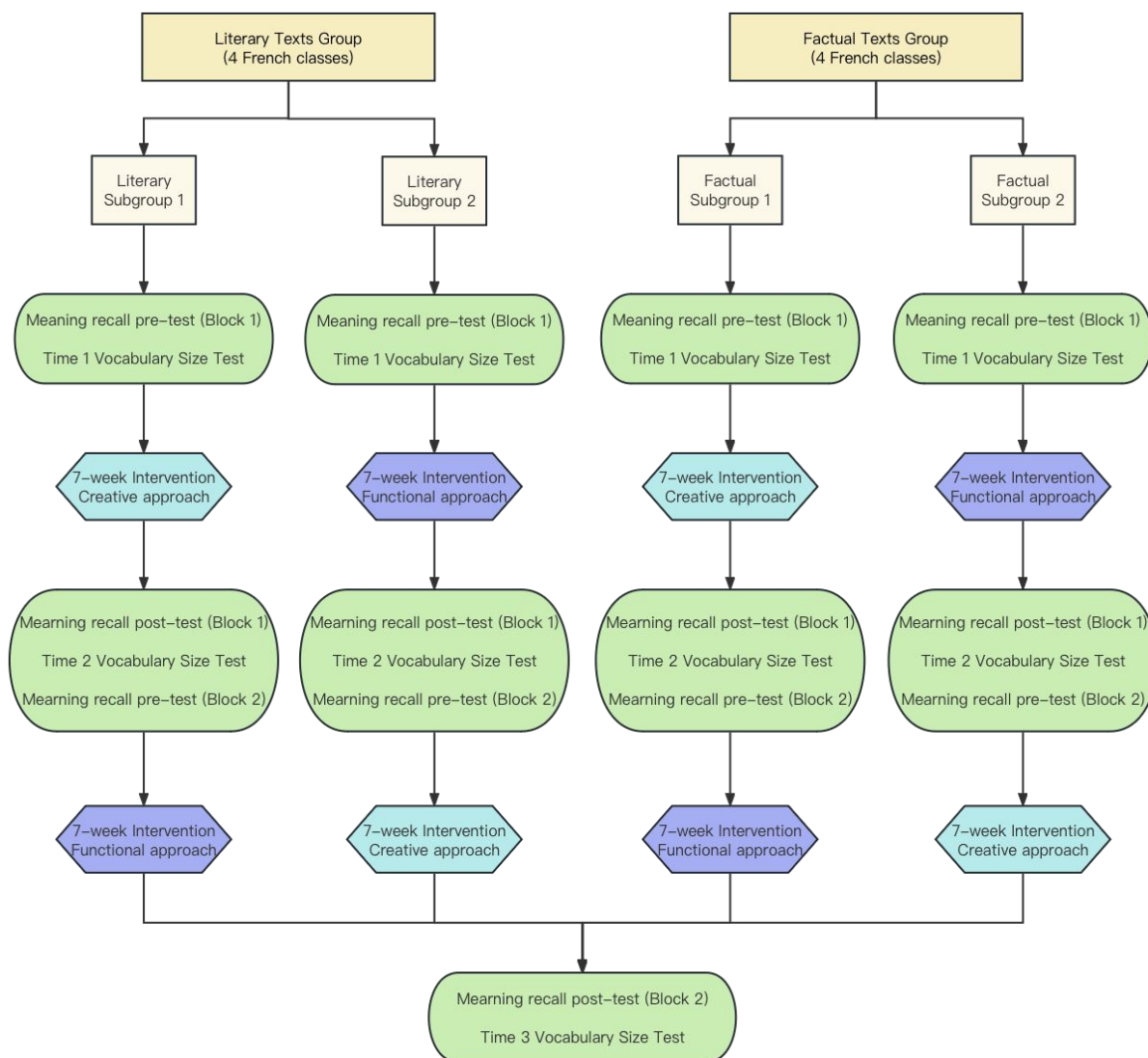
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3 had very variable amounts and forms of French teaching at primary school. On average
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5 learners were receiving between 1.5 and two hours of French instruction a week at school.
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8 Schools were allocated to either a *literary* or a *factual* text group, with 81 learners in
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10 the former and 79 in the latter¹. Efforts were made to achieve a balance of schools across the
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12 two groups in terms of: the socio-economic profiles of schools, as indicated by the
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14 percentages of pupils eligible for Free School Meals (FSM, a measure for social deprivation
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16 widely used in the UK); the number of pupils with English as an Additional Language
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18 (EAL); and number of pupils achieving a good pass in the GCSE, the examination taken at
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20 age 16 in England and hence an indication of levels of attainment in each school. Schools
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22 also provided data on the participants' prior academic attainment, which were standardised as
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24 z scores.
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31 *Study design*

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33 Both the *literary text* and *factual text* groups studied six texts in total, across two
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35 blocks of teaching (three texts per seven week block). In each block learners experienced
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37 either a *creative* or a *functional* teaching approach, following a counterbalanced design. That
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39 is, half of each text-group experienced the *creative* approach, and the other half the *functional*
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41 approach in the first teaching block, and vice versa in the second. Each teaching block began
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43 with a pre-test consisting of target vocabulary items that would be encountered over the
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45 teaching block. These same items were then reassessed at the end of the teaching block as a
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47 post-test. Learners' general vocabulary size was also assessed before and after the first
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49 teaching block, and for a final time at the end of the second teaching block (with the end of
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51 first teaching block test acting as a pre-test for the second teaching block). See Figure 1.
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Figure 1

Study design*The intervention*

As outlined in Figure 1, learners in both text groups experienced what we termed *creative* and *functional* teaching approaches. In the former, the focus was on generating learners' personal involvement with the text, and their attention was drawn to the emotional content. Any focus on linguistic features, such as use of tense, or vocabulary choice, was

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3 undertaken with the aim of showing how they were used by authors to express meaning;
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5 learners were also asked to ‘evaluate’ such language use (Laufer & Hulstijn, 2001) in order to
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7 strengthen their level of personal and emotional engagement with the texts. For example,
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9 learners might be asked to judge which of two L1 translation versions of lines from an L2
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11 text best conveyed the writer’s feelings (see Figure 2 for further examples). Hence the
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13 *creative* approach drew on aspects of the Personal Growth Approach (Carter & Long, 1991),
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15 and sought to maximise learners’ sense of connectedness through personal involvement with
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17 the text and autonomy in how they interpreted it. By contrast, in the *functional* approach, the
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19 aim was to generate learners’ comprehension of information on a factual, literal and non-
20
21 emotional level. Their attention was drawn to the grammatical, lexical and phonetic features
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23 of the text, and this focus on language patterns and linguistic features was undertaken with
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25 the aim of developing their grammatical, lexical and phonological knowledge. For both
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27 approaches we chose activity-types that schools in our sample would be familiar with using
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29 (based on our experience as teacher educators), for example, identifying examples of
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31 different grammatical tenses, gap-fill tasks, L1-L2 translation, matching words and pictures.
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33 As far as possible, the type of activity was kept constant across the two approaches for any
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35 given text but implemented in either a *creative* or a *functional* form. The exploitation of each
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37 text, regardless of approach, began with the glossing of words that learners would not be
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39 expected to know but that were necessary for understanding the text. Additionally, in both
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41 approaches, learners were given a small element of choice (in the activities offered for
42
43 homework), but the *creative* approach alone gave learners scope for further autonomy, for
44
45 example in open-ended in-class activities for which there was no right or wrong response and
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47 many different solutions were possible. Multimodal presentation was used in both approaches
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49 (video clips, images, sound) but in ways that corresponded to the focus of each (see Figure
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51 2). To maximise fidelity to condition/approach, teachers received two hours of training by the
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3 research team, materials (multimodal PowerPoint presentations) and lesson plans to use with
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5 the texts. These were designed so that 60 minutes of class time was spent on each text and an
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7 additional 20 minutes for out of class follow-up homework, to equalise time spent on
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9 activities across text-type and teaching approach (with approximately four hours in total spent
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11 on the texts in each teaching block). One observation of each teacher was also undertaken to
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13 monitor fidelity to condition.
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Figure 2

The creative and functional approaches: example activities used with texts

Creative	Functional
Pre-reading: Background information about the author or context – emphasis on values, feelings.	Pre-reading: Background information about the author or context – emphasis on facts, dates, etc.
Look at images – prediction of emotions, themes addressed.	Look at images – prediction of events/information covered.
Key vocabulary given.	Key vocabulary given.
Working with the text: Listen to/watch YouTube rendition of the text, with accompanying music and written version of the poem.	Working with the text: Listen to the teacher reading the text aloud and follow the written version.
Verification/discussion of predictions	Verification/discussion of predications
L1-L2 translation – which of two versions is most expressive?	L1/L2 translation – which of two versions is the most accurate?
Look at verbs in future tense, negative expressions – what themes/emotions do they convey? Find examples and categorise them according to type of emotion.	Look at verbs in future tense and negative expressions. After a grammatical explanation, find examples of each feature and categorise them into type of verb and negative formation.
Listen again to the text and follow – how is emotion expressed through intonation?	Listen again to the text and follow – which phonemes are exemplified?
Post-reading: Summary – give your overall impression of text, what feelings it evoked	Post-reading: Complete summary gap fill- what can you remember about what happened in the text?

Texts

The poems used for the teaching intervention were carefully selected based on a range of relevant criteria. A crucial criterion regarding content was that each poem should treat a theme likely to be of interest to teenagers and capable of provoking some kind of reaction, but at the same time be accessible on a conceptual, emotional and linguistic level. The text length and complexity were important formal criteria. Prior to the intervention, the nine poems initially selected were shared with the teachers who would be involved in the study, as it was also important that they deemed the texts to be appropriate for their learners. They were asked to rate each poem for suitability of use, on a scale from 1 (not suitable at all) to 10 (highly suitable). This process resulted in five texts with a mean suitability score of over 6. An additional text was then selected in consultation with a teacher who had used it with learners of a similar age and proficiency level to those in the study.

These six poems were then analysed for readability, using the **Lix readability formula** which has been tested with a range of languages, including French (Björnsson, 1983), $LIX = A/B + (C/A \times 100)$, where

A = Number of words

B = Number of periods (defined by period, colon or capital first letter)

C = Number of long words (more than 6 letters)

Lix scores were then interpreted using the scale suggested by Björnsson (1983):

20 = Very easy

30 = Easy

40 = Medium

50 = Difficult

60 = Very difficult

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3 Following the selection of the target poems, we created or adapted factual texts to
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5 match the poems as closely as possible on the following criteria: readability level, topic,
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7 length and linguistic content. Thus, for example, one poem selected, ‘L’homme qui te
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9 ressemble’ [The man like you], deals with the theme of tolerance and common humanity. We
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11 wrote a short factual text on the issue of refugees seeking acceptance in Europe that used
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13 much of the same vocabulary and grammatical structures as the poem. Details of poems and
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15 matching factual texts, presented in the order in which they were used in each teaching block,
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17 appear in the Supplemental Materials, Appendix 1. The same themes were covered in each
18
19 teaching block, and the readability level was balanced across the two blocks and across text
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21 types. Table 1 summarises features of texts and shows that all were within the Very Easy to
22
23 Easy range (Björnsson, 1983). Independent-samples t-tests indicated that there were no
24
25 significant differences across teaching blocks or text-types for readability, even though Block
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27 2 texts were somewhat longer. It should be noted, however, that teachers in the study reported
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29 using these kinds of texts and themes very rarely under normal circumstances, and each of the
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31 texts would be considered challenging linguistically according to the expectations that are set
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33 for language learners in England (DfE, 2022).
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Table 1

Summary of text characteristics

	Block 1		Block 2	
	Literary	Factual	Literary	Factual
	Mean (SD)		Mean (SD)	
No. of words	122.00 (16.70)	121.67 (14.10)	171.67 (105.16)	162.00 (53.56)
Lix formula	24.67 (9.29)	24.00 (6.00)	23.33 (8.51)	24.00 (1.00)

Vocabulary tests

Vocabulary knowledge was assessed in two forms: first, as general vocabulary size; second, as meaning recall for vocabulary items encountered in the intervention. These two forms were selected because our review of the background research suggested that reading literary texts might have an impact on learning of target items contained in the texts but also on vocabulary knowledge gained more incidentally beyond the target items. Both forms of tests were piloted before use.

Vocabulary size. Participants completed a version of the X-Lex French vocabulary test, adapted from the original X-Lex test (Meara, 1992) to make it suitable for lower-proficiency learners of French. We used three comparable versions of the test to avoid a practice effect, following Myles and Mitchell (<http://www.flloc.soton.ac.uk/>) from whose French Language Learner Corpora site the tests were drawn. The X-Lex test is a Yes/No test of vocabulary recognition, in this adapted version assessing 120 words: 20 randomly selected from each of the first five 1000-word frequency bands plus 20 non-words (included to allow

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3 adjustments for guessing). Learners have to tick words they know, with a possible total score
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5 of 5000. We selected X-Lex for several reasons. First, word recognition is an aspect of
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7 vocabulary learning that typically occurs early on in the learning process (Nation, 2022). Our
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9 learners had relatively little lesson time for French overall (1.5-2 hours per week overall, see
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11 *Participants*) and spent only four hours approximately on the intervention in each teaching
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13 block. We therefore needed a measure that would capture smaller, more incremental change
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15 in vocabulary knowledge than could be achieved by assessing just learning of target items.
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17 Vocabulary size tests are also useful for assessing the impact of more incidental learning,
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19 which we anticipated might result from the intervention. Furthermore, there are very few, if
20
21 any, well-evaluated tests of French vocabulary for lower-proficiency learners and a version of
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23 X-Lex has been used in similar studies (e.g. Graham et al., 2008; Woore et al., 2018) to
24
25 assess changes in vocabulary size over around six months for school-based learners of French
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27 in England. X-Lex was also used by one of its developers, Milton (2006), with learners aged
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29 11-18, indicating its suitability for the learners in our study. Using X-Lex also allowed us to
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31 make some comparisons with Milton's previous (2006, 2015) findings, as well as providing
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33 an easy to administer test (Uchihara & Clenton, 2020).
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40 *Meaning-recall vocabulary tests.* These tests were designed to assess the learning of
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42 the meaning of certain target items encountered in the intervention. Each teaching block was
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44 preceded and followed by a vocabulary test containing 27 items (different items assessed for
45
46 each teaching block). These items were given in written form in the L2 (French) and learners
47
48 were asked to write the L1 (English) meaning.
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52 *Target items.* In each text pair (*literary* and *factual*), key words/phrases were
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54 identified on the basis that they were important to the meaning of the text, were likely to be
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56 unknown to the learners, and yet from a relatively high frequency band. Thus, nine items per
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58 text were selected, giving 27 items that were included in tests for each teaching block. The
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3 vast majority of such items occurred in the teaching materials that were used with the texts as
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5 well as in the texts themselves. For five target items occurring in Block 2, however, it was
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7 decided in retrospect that the teaching materials gave only minimal exposure to those target
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9 items, and that therefore they should be excluded from the subsequent analyses, giving 27
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11 target items for Block 1, and 22 for Block 2. The Block 1 items for analysis comprised: 10
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13 verbs/verb phrases; 10 nouns; four noun collocations; one adjective; one negative pronoun,
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15 one preposition. The Block 2 items for analysis consisted of: 11 verbs/verb phrases; 9 nouns;
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17 2 prepositions/pronouns. In both Block 1 and 2 the majority of items (82% and 83%
18
19 respectively) were from the K1 and K2 frequency bands. We selected items from different
20
21 word classes in both Blocks to increase the ecological validity of the study, given that in a
22
23 real language classroom context, words of different classes are taught and also encountered in
24
25 authentic texts. Furthermore, as we explain in the *Data analysis* section, the statistical tests
26
27 we used allowed us to control for any variability in difficulty level and so on across different
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29 items. All target items included in the analyses are given in the Supplemental Materials,
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31 Appendix 2.
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38 *Data analysis*

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40 The reliability of the X-Lex tests and the meaning-recall tests was measured using
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42 Revell's omega total, the greatest lower bound, and Coefficient *H* as alternatives for
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44 Cronbach's alpha (McNeish, 2018). Both instruments demonstrated good reliability (all
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46 measurements > .80, see Supplemental Materials, Appendix 3).
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50 The data were then analysed using R (version 3.5.0; R Development Core Team,
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52 2018) and the 'lmerTest' package (Kuznetsova et al., 2017). Linear mixed-effects models
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54 were employed for the analysis of the X-Lex tests because they had a continuous outcome
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56 variable. As the meaning-recall vocabulary tests had a binary outcome variable
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58 (correct/incorrect) they were analysed using generalised linear mixed-effects models. For
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3 both types of test we had four fixed factors: 1. **Time** (Time 1 (Pre-test) vs. Time 2 (Post-
4 test)); 2. **Text** (*Factual* vs. *Literary*); 3. **Approach** (*Creative* vs. *Functional*); 4. **Order** (the
5 order in which learners experienced each teaching approach in the counterbalanced design,
6 either Creative-Functional (CF) or Functional-Creative (FC)). For these categorical
7 predictors, the following were set as the baseline for Time, Text and Order respectively: Time
8 1 (Pre-test); *factual*; *creative*; and CF. The fixed effects structure of the model was
9 theoretically driven to answer the research questions, and hence included all four of these
10 predictors and the highest four-way interaction between them. Learners' prior academic
11 attainment data (*z*-scores) were included as a covariate to control for their existing level of
12 academic performance in French.
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26 We began analyses with a maximal random effects structure (Barr et al., 2013), that
27 is, including all factors that might cause random variability in the dependent variable (either
28 X-Lex scores or meaning-recall test scores), namely at the level of individual participant, the
29 school they attended, and different test items (for the meaning-recall tests). The maximal
30 model therefore included random intercepts for Participant and for School, by-Participant
31 random slopes for Time, Approach, and their interaction, and by-School random slopes for
32 Time, Approach, and their interaction. For the meaning-recall scores we also included
33 random intercepts for Item, and by-Item random slopes for Time, Text, and Time x Text
34 interactions. If the maximal model did not converge (that is, could not be computed), we
35 gradually simplified it by removing interaction terms and the random effects which
36 contributed to the least variance until a final converged model was obtained. The 'Anova'
37 function from the 'car' package in R (Fox & Weisberg, 2019) was then used to establish
38 whether fixed effects interactions were significant or not; those that were significant were
39 then plotted using the 'effects' package (Fox & Hong, 2009) and further interpreted by
40 conducting multiple pairwise comparisons with the 'emmeans' package (Lenth, 2019).
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3 The analysis procedures outlined above allowed us to control for the fact that the
4 intervention was delivered by different teachers (one teacher in each of eight schools), any
5 differences in target item difficulty or frequency of occurrence in the texts (also controlled for
6 by the counterbalanced design), and size of intervention group.
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13 FINDINGS

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16 *RQ1. How much vocabulary is learnt through literary and factual texts respectively, in terms*
17 *of learners' general vocabulary size? To what extent does the amount of vocabulary learnt*
18 *depend on the teaching approach used with the texts?*
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23 For this Research Question the X-Lex test scores were analysed. Table 2 gives
24 descriptive statistics by text-type, teaching approach, and test time points. Scores (especially
25 at pre-test) were not dissimilar to those obtained by Milton (2006) for learners of similar
26 age/proficiency level (including some learners scoring at zero).
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58 Table 2
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Descriptive statistics for the X-Lex tests (N = 160 in total)

Approach	Text	Time	N	Mean	SD	Min	Max
Creative	Factual	Pre-test	71	439.44	464.37	0	1850
	Factual	Post-test	71	728.39	489.32	0	1950
	Literary	Pre-test	77	653.90	449.62	0	1800
	Literary	Post-test	77	924.68	567.75	0	2450
Functional	Factual	Pre-test	67	620.90	428.36	0	2100
	Factual	Post-test	67	842.54	544.34	0	1850
	Literary	Pre-test	76	483.55	394.16	0	1600
	Literary	Post-test	76	824.34	465.58	0	1950

Note: The X-Lex test administered at the end of Block 1 was taken as the post-test for that block, and also as the pre-test for Block 2.

The data were then analysed using linear mixed-effects models. As the maximal model we started with did not converge, we simplified it to include only random intercepts for Participant and School, following the approach outlined in the *Analysis* section. Overall, the model showed a good-fit to the data. The two R^2 (Marginal $R^2 = 0.21$ and Conditional $R^2 = 0.54$) indicated that 21% of the variance was explained by the fixed effects and both fixed effects and random effects explained 54% of the variance.

Our analyses showed significant three-way Time x Text x Approach interactions ($X^2(1) = 5.83, p = .016$) and Time x Text x Order interactions ($X^2(1) = 4.03, p = .045$) (see Supplemental Materials, Appendix 4 for full model results). These significant interactions suggested that learning gains for each text-type not only differed according to which teaching

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3 approach was used with them, but also according to which approach learners experienced
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5 first (remembering that all learners experienced both approaches, one each in each teaching
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7 block).
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10 We first plotted the Time x Text x Approach interactions in order to interpret them
11 (Figure 3) and then calculated vocabulary gains using multiple pairwise comparisons for
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13 “Time (Post-test vs. Pre-test)” by text-type and teaching approach (Table 3). Figure 3
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15 suggests that there were learning gains for each text-type and teaching approach. Table 3
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17 shows that such gains were all statistically significant. Furthermore, both the steeper line for
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19 the first and last plot of Figure 3, and the Estimates given in Table 3, indicate that the greatest
20
21 gains occurred when *factual* texts were used with a *creative* approach, closely followed by
22
23 the use of *literary* texts were used with the *functional* approach. There was an estimated
24
25 vocabulary size increase of 354.58 and 341.07 respectively for these two text-approach
26
27 combinations. Smaller gains were made by the *Creative x Literary* learners; using the
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29 *functional* approach with *factual* texts led to the smallest gains of all.
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56 Figure 3

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59 Time x Approach x Text effect plots
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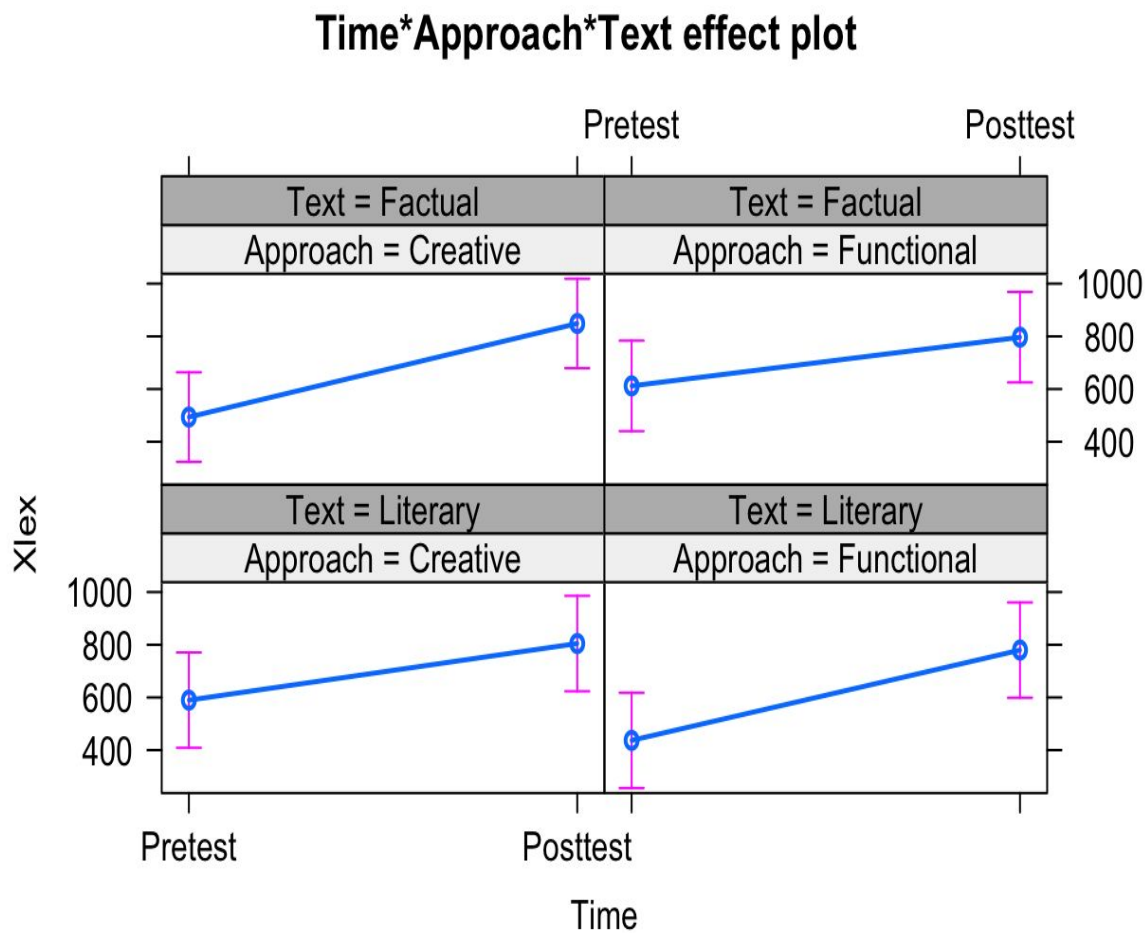


Table 3

Pairwise comparisons between test time points by text-type and teaching approach

Contrast	Text	Approach	Estimate	95% CI		<i>p</i>
				Lower	Upper	
Time2 - Time1	Factual	Creative	354.58	233.15	476.01	< .001
Time2 - Time1	Factual	Functional	188.28	63.37	313.19	.003
Time2 - Time1	Literary	Creative	206.57	85.89	327.26	< .001
Time2 - Time1	Literary	Functional	341.07	220.97	461.17	< .001

We next sought to understand the Time x Text x Order interactions. To do so we examined first the effect plots given in Figure 4, followed by multiple pairwise comparisons for “Time” by teaching approach and the order of the teaching approaches (Table 4). The first two plots in Figure 4 show the learning gains for the *factual* text group. The steeper line in the first plot suggests greater gains for learners whose teachers used the *creative* approach first (i.e. in Block 1), compared with learners who experienced the *functional* approach first (Plot 2). The estimates in Table 4 (297.53 vs. 245.33, row 1 and 2) support that conclusion. For the *literary* texts group, however, the opposite was the case. As is seen when the line slopes of Plot 3 and Plot 4 in Figure 4 are compared, there were larger gains for learners who experienced the *functional* approach first and the *creative* approach second compared with learners who started with the *creative* teaching approach. Again the estimates in Table 4 provide confirmatory evidence of that difference, which was large (371.80 vs. 175.85, row 3 and 4).

Figure 4

Time x order x text effect plots

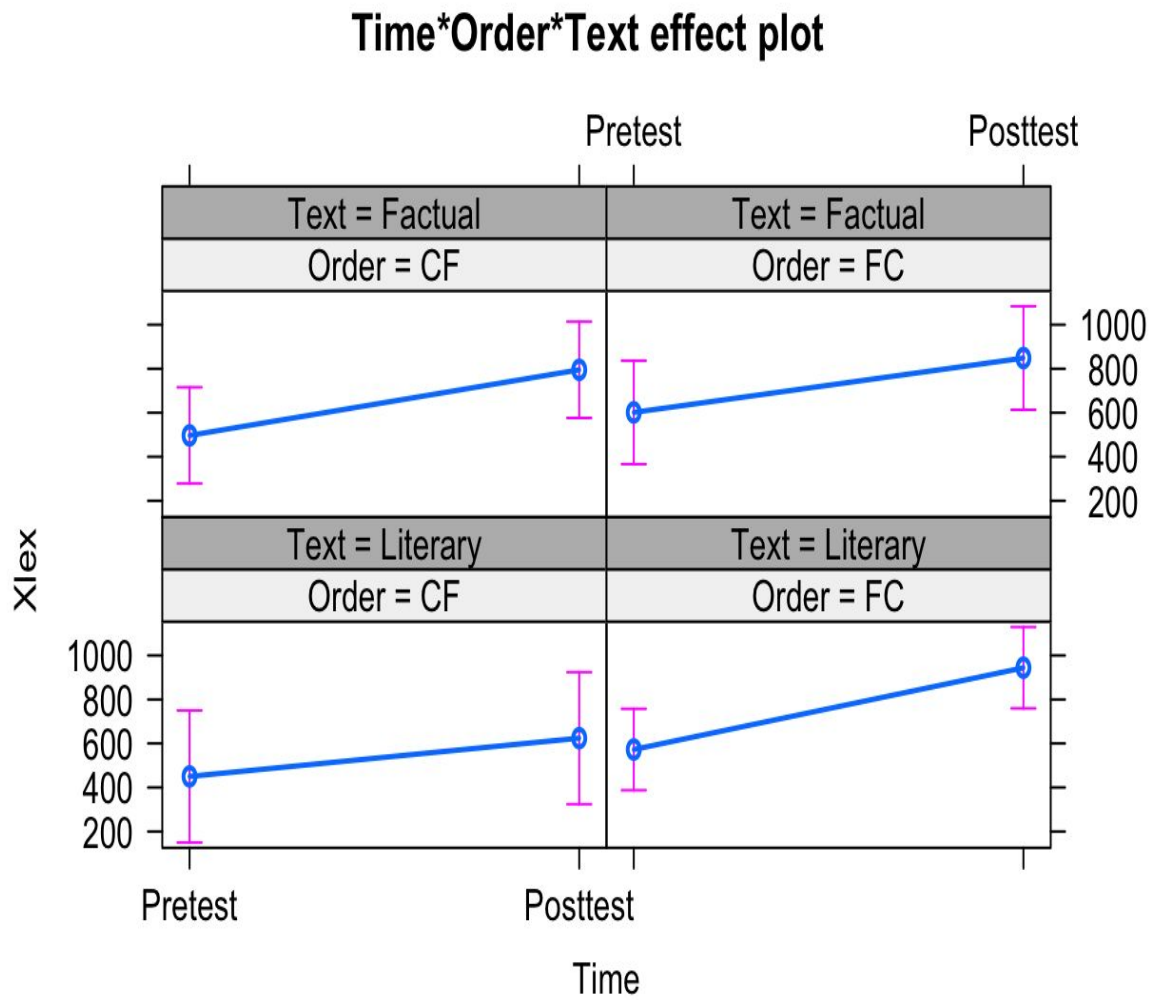


Table 4

Pairwise comparisons between test time points by text-type and order

Contrast	Text	Order	Estimate	95% CI		<i>p</i>
				Lower	Upper	
Time2 - Time1	Factual	CF	297.53	187.82	407.24	< .001
Time2 - Time1	Factual	FC	245.33	110.02	380.65	< .001
Time2 - Time1	Literary	CF	175.85	39.28	312.41	.012
Time2 - Time1	Literary	FC	371.80	270.11	473.48	< .001

RQ2. How much vocabulary is learnt through literary and factual texts respectively, in terms of target items contained in the texts? To what extent does the amount of vocabulary learnt depend on the teaching approach used with the texts?

To answer these questions, we first produced descriptive statistics for the meaning-recall vocabulary tests by approach, text-type, and test time point (Table 5). These showed that average learning gains were modest and in some cases low, but with quite a lot of variation across learners, as indicated by the Standard Deviations².

Table 5

Descriptive statistics for the meaning-recall tests (N = 160 in total)

Approach	Text	Time	N	Mean	SD	Min	Max
Creative	Factual	Pre-test	34	9.26	3.06	4.00	16.00

	Factual	Post-test	34	8.82	4.81	2.00	17.00
	Literary	Pre-test	60	6.82	2.73	2.00	14.00
	Literary	Post-test	60	11.32	4.45	4.00	25.00
	Factual	Pre-test	62	5.32	2.46	1.00	12.00
Functional	Factual	Post-test	62	7.56	4.31	1.00	25.00
	Literary	Pre-test	76	6.26	3.17	0.00	15.00
	Literary	Post-test	76	11.01	3.92	3.00	23.00

The data were then analysed using generalised linear mixed-effect models. Our final converged model included the random intercepts for Item, Participant, and School, by-Item random slopes for Time, Text, and Time x Text interactions, and by-Participant random slopes for Time. The two R^2 (Marginal $R^2 = 0.092$ and Conditional $R^2 = 0.67$) of the final model indicated that 9.2% of the variance was explained by the fixed effects; both fixed effects and random effects explained 65% of the variance. Full model results are given in the Supplemental Materials, Appendix 5.

As was the case for X-Lex, our analyses indicated that learning gains differed according to text-type, teaching approach used, and the order in which approaches were implemented. In other words, we found statistically significant three-way Time x Text x Order interactions ($X^2(1) = 22.57, p < .001$) and Time x Text x Approach interactions ($X^2(1) = 20.23, p < .001$).

In order to better understand the Time x Text x Approach interactions, the plots shown in Figure 5 were firstly produced. We then calculated gains using multiple pairwise

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3 comparisons for 'Time' by text-type and teaching approach (Table 6). What is most striking
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5 in Figure 5 is the steep line for the *literary* text group, in both the third and the last plot,
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7 indicating the largest learning gains. By contrast, the line for the first, *Factual-Creative* plot
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9 slopes slightly downwards, indicating no learning. The *Factual-Functional* plot (Plot 2) lies
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11 somewhere between these two positions. These visual representations of learning gains are
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13 then supported in Table 6 by the Odds Ratios, which express the likelihood of learners
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15 scoring correctly at the post-test compared with scoring correctly at the pre-test. From those
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17 Odds Ratios we can conclude that the learners in the *literary* text group were around five
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19 times more likely to know the target items after the intervention, regardless of the teaching
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21 approach they experienced. By contrast, while the *factual* texts group did make statistically
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23 significant progress when they experienced a *functional* approach, they were only around
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25 three times as likely to know the target items after the intervention than before. Finally, when
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27 the *factual* texts group experienced a *creative* teaching approach, they were no more likely to
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29 know the target items after the intervention than before, as is reflected in the Odds Ratio
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31 below 1 (Table 5, Row 1). Furthermore, although the effects of the *functional* approach
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33 seemed to be fairly comparable across the two types of texts (5.20 vs. 3.22), the benefits of
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35 the *creative* approach seemed to be much more strongly associated with *literary* texts use
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37 rather than with *factual* texts use (4.69 vs. 0.81).
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51 Figure 5

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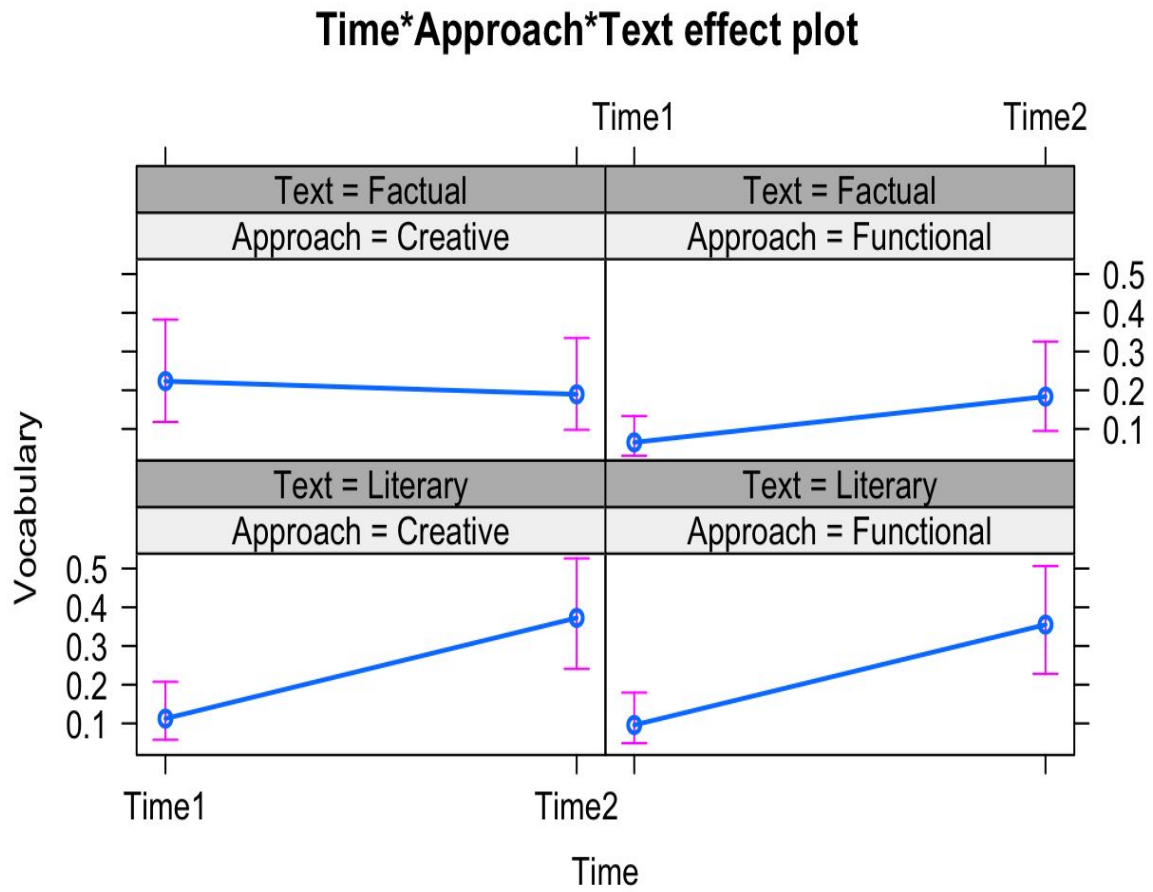


Table 6

Pairwise comparisons between test time points by text-type and teaching approach

Contrast	Text	Approach	Odds ratio	95% CI		<i>p</i>
				Lower	Upper	
Time2–Time1	Factual	Creative	0.81	0.52	1.26	.36
Time2–Time1	Factual	Functional	3.22	2.04	5.08	<.001
Time2–Time1	Literary	Creative	4.69	3.27	6.73	<.001
Time2–Time1	Literary	Functional	5.20	3.64	7.41	<.001

Finally, to better understand the Time x Text x Order interactions, we ran multiple comparisons for the effect of “Time” by text type and the order of the teaching approaches (see Table 7). The interactions are shown in Figure 6.

Figure 6

Time x order x text effect plots

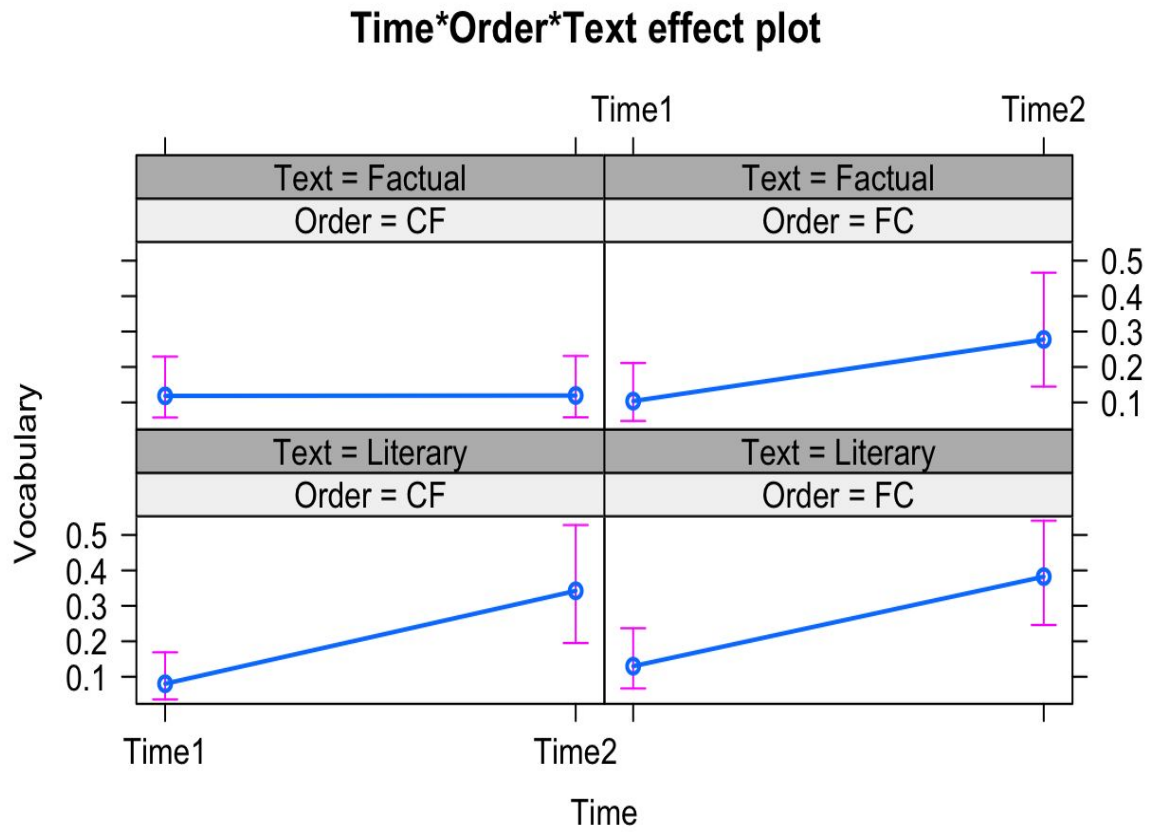


Table 7

Pairwise comparisons between test time points by text-type and order

Contrast	Text	Order	Odds ratio	95% CI		<i>p</i>
				Lower	Upper	
Time2–Time1	Factual	CF	0.85	0.55	1.32	.47
Time2–Time1	Factual	FC	3.07	1.91	4.96	<.001
Time2–Time1	Literary	CF	6.06	3.98	9.21	<.001
Time2–Time1	Literary	FC	4.02	2.81	5.75	<.001

These results firstly indicated that learners who read the *literary* texts made the largest, significant vocabulary gains, especially when they experienced a *creative* approach first and a *functional* approach second (Rows 3 and 4). For the *factual* text group, however, only those learners whose teachers started with a *functional* approach showed significant improvement in their knowledge of the target items. Experiencing first the *creative* approach, then the *functional* approach, did not lead to any significant vocabulary gains.

DISCUSSION

This study aimed to answer the following questions: How much vocabulary is learnt through literary and factual texts, in terms of a) learners' general vocabulary size; b) target items contained in the texts? To what extent does the amount of vocabulary learnt depend on how the texts are used?

Beginning with general vocabulary size, we found that learners, who had spent around four hours studying the texts in each teaching block, made gains in vocabulary size of between 188.28. and 354.58 words, depending on which text-type and teaching approach they experienced. That is rather remarkable, given the 2.7 to 1.73 words estimated to be gained on average for every hour of instruction received (Milton, 2006, 2015) by high school learners of

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3 French in England below the age of 16. Direct comparisons should be made cautiously with
4 those studies, however, given that their design was quite different from the present study (as
5 was sample size, in the case of Milton, 2015). Furthermore, the average learning gains for
6 target items contained in the texts in the present study were also much more modest, namely
7 between two and five words per teaching block, but with variation across learners.
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15 There was also variation in learning gains attributable to the text-type, teaching
16 approach, and the order in which those approaches were experienced by learners. For general
17 vocabulary size, the greatest improvement was made by learners who read *factual* texts and
18 experience a *creative* approach, followed by learners who experienced the combination of
19 *literary* texts and *functional* approach. A *Literary x Creative* combination led to slightly
20 lower gains, and a *Factual x Functional* approach to the smallest gains. The order in which
21 learners experienced each teaching approach also mattered: those who read *factual* texts did
22 best when they experienced a *creative* approach before a *functional* one, but those who read
23 *literary* texts benefited from having a *functional* before a *creative* approach.
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36 Rather different conclusions can be drawn, however, regarding the learning of target
37 vocabulary items contained within texts read. Learning gains were always greatest for
38 reading *literary* texts rather than *factual* ones, and there was relatively little difference
39 between using a *creative* or *functional* approach with the poems. The *functional* approach
40 seemed comparably effective with either text-type, especially when it was used first and
41 followed by the *creative* approach. By contrast, the *creative* approach only brought benefits
42 (albeit strong ones) when used with *literary* texts, most strongly when used after a *functional*
43 approach.
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55 How might we interpret these somewhat complex and in places contradictory
56 findings? First, different findings for general vocabulary size and learning of the target items
57 in the texts themselves were not totally unexpected. The teaching intervention in all its forms
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3 would be expected to have a more direct effect on learning of target items contained in the
4 intervention texts, while learning gains for general vocabulary size suggest a more indirect
5 effect, as the X-Lex test assessed knowledge of words beyond those included in the texts.
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10 That indirect effect on vocabulary knowledge may have arisen perhaps through some kind of
11 triggering of learners' ability to learn from the wider French input that they were receiving.
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14 The *Factual x Creative* combination would have been the most novel one for learners, with
15 its focus on the emotive quality of language in a factual text. That novelty may possibly have
16 stimulated some kind of 'learner-generated noticing' (Park, 2013) or 'self-teaching' (Share,
17 1995) process. The fact that the smallest gains of all came from a *Factual-Functional*
18 combination lends some support for such an interpretation. Also notable however is that for
19 the greatest benefits learners needed to have experienced the *factual* texts in the *Creative-*
20 *Functional* order, whereby their engagement was first stimulated in Block 1 through a
21 *creative* approach before going on to a more *functional* consideration of language in Block 2.
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34 Turning to the *literary* texts, the opposite was true, in that when order was taken into
35 account, the largest learning gains for general vocabulary size occurred for the *Literary-*
36 *Creative* (F-C) combination. That is to say, learners needed to have encountered what would
37 have been unfamiliar and potentially more challenging poetic materials within a *functional*
38 approach first, before going on to consider these in a *Literary-Creative* combination. Thus for
39 poetic language to also stimulate the learner-generated noticing process referred to earlier,
40 perhaps because of how such language "draws attention to itself" (Hanauer, 2001: 298),
41 learners first needed to be able to access the poems on a more factual and straightforward
42 level. Overall it seems that both *Literary x Functional* (F-C) and *Factual x Creative* (C-F)
43 combinations may have achieved the best balance of challenge, engagement and accessibility.
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57 Regarding the learning of the individual target items, where any effect of the
58 intervention sessions would have been more direct, using *literary* texts consistently led to the
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3 greatest gains, regardless of approach used. Individual words in the poems may have been
4
5 more salient than in the *factual* texts, even within the same teaching approach, in line with
6
7 Hanauer's (2001) view about poetry language cited earlier. In a questionnaire administered to
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9 learners at the end of each teaching block (not reported here for reasons of space) we also
10
11 found that the *literary* texts were always enjoyed more, and significantly so for Block 2,
12
13 although learners' prior academic achievement seemed to matter especially for the first set of
14
15 texts in Block 1. Learners' greater enjoyment of the poems suggests that they perhaps
16
17 experienced greater motivational 'need' to understand the words contained in those texts
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19 (Laufer & Hulstijn, 2001) and hence learnt them better than they did through the factual texts.
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21 Similarly, the fact that the *creative* approach seemed more effective when used with the
22
23 *literary* rather than with the *factual* texts might further suggest that activities designed to
24
25 heighten Personal Growth, 'evaluation, 'autonomy' and 'relatedness' work best for target
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27 item learning with texts that are in themselves more 'creative'. The *creative* approach worked
28
29 much less well for target item learning with *factual* texts, especially if used first. This was the
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31 opposite of what was found for general vocabulary size, where a 'creative approach first' was
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33 important for *factual* texts, in what we described earlier as a novel and unusual combination
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35 that seemed to have an indirect effect on general vocabulary size. As already argued, the
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37 target vocabulary items were perhaps less salient in the *factual* texts than in the poems,
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39 meaning that learners needed their attention drawn to them in a more language-focused way.
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53 LIMITATIONS AND FUTURE STUDIES

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55 Our study is limited by the absence of a control group that experienced the type of
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57 teaching and text normally used with learners aged 13-14 in England. We were able,
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3 however, to compare the gains made in general vocabulary size by our learners with those
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5 from the same context in research by Milton (2006, 2015). Adding a control group would of
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7 course have further complicated our study design. Simplifying the latter, by, for example, just
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9 comparing text-type or teaching approach, might also have led to clearer conclusions. It
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11 would, however, have prevented us from exploring what seem to us to be a highly significant
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13 and previously unaddressed question, namely what kind of material used in what way leads to
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15 better learning outcomes. Future research could usefully explore that question with different
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17 languages and in different learning contexts. Finally, our interpretations of the present study's
18
19 findings with reference to noticing are speculative only as we did not directly measure
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21 noticing or attention. Methods such as eye tracking would be useful in further studies to
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23 explore what learners attend to when reading different types of texts and in different teaching
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25 approaches.
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34 CONCLUSIONS AND PEDAGOGICAL IMPLICATIONS

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40 The current study took the original focus of investigating how much vocabulary is
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42 learnt from literary compared with factual texts and the relative benefits of different teaching
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44 approaches used with such materials. It established that learners of relatively low language
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46 proficiency are able to learn vocabulary from poems and semi-authentic, factual texts of a
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48 challenging nature. The relative benefits of different text-types and teaching approaches are
49
50 complicated to determine, however. *Literary* texts emerged as more effective for learning
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52 target items; for general vocabulary size, *factual* texts used creatively and *literary* texts used
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54 functionally both seemed to bring large benefits.
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3 Taken together, these findings extend understanding of vocabulary learning in
4 instructed settings, and especially through literary and other texts, in two important ways.
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6 First, they underscore the ways in which text-type and teaching approach interact and how
7 that interaction may have differing impacts on different forms of vocabulary knowledge.
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9 Second, they suggest that there might be some merit in broadening out how ‘need’ within the
10 Involvement Load Hypothesis is conceptualised to include aspects of Self-Determination
11 Theory (Ryan & Deci, 2022), particularly autonomy and relatedness.
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20 From a pedagogical perspective, there are a number of conclusions to be drawn from
21 the study. Perhaps most significantly, for the England context at least, that lower proficiency
22 learners are able to benefit in terms of vocabulary knowledge from studying texts that are of a
23 more demanding nature, linguistically and cognitively, than the curriculum in England
24 expects them to study (DfE, 2022). Proposals in England that take effect from 2024 and limit
25 the range of language on which learners aged 16 will be assessed have been criticised for
26 their potential washback effect on teacher practices, perhaps leading them to use only very
27 simple and uninspiring texts in class, that give little if any exposure to lower frequency words
28 (Milton, 2022). Given that in this study the benefits from reading more challenging texts were
29 particularly strong for general vocabulary size, that prospect is a concern. The study also
30 indicated that poems may be more useful than factual texts for the learning of specific items
31 of vocabulary. Teachers should therefore be encouraged to experiment with their use and to
32 raise their expectations for rates of vocabulary growth in their learners (Milton, 2015).
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50 Finally, we found that for learning items of vocabulary it is generally better to start off
51 with a *functional* approach and then move on to a *creative* one when using more challenging
52 texts, factual or literary. By contrast, for increasing general vocabulary size, *factual-creative*
53 and *literary-functional* combinations seem to work well, especially when learners first start
54 working with such texts. In other words, no single approach can be recommended for any
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3 particular text-type; instead, both have their respective merits and they should be used in
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5 conjunction with one another. That was the conclusion we shared with teachers involved in
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7 the project, and which has led to a set of recommendations for using the kind of texts we
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9 outline in this study, emphasising the value of using both *functional* and *creative* approaches.
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11 These recommendations, free to download here [link to be added post-review], include: the
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13 careful selection of texts that engage and challenge as well as covering key language; ways to
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15 stimulate learners' anticipation before they read the text in question; use of multimodality to
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17 support comprehension as well as to stimulate personal involvement; and different kinds of
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19 activities that encourage learners to engage with a text's language at a deeper level. Finally,
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21 while there is likely to be a degree of variation in terms of how much learners enjoy working
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23 with this kind of more challenging text, poems might be more engaging than factual texts.
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29 In summary, while in many English as a Foreign Language classes the inclusion of
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31 literary texts is already established and especially for adult and more proficient learners, this
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33 is far from the case for the learning of other languages in input-poor settings such as England.
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35 Our findings suggest that high school language learning in such a context can also benefit
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37 from the use of literary texts alongside factual reading material, and that further research into
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39 their affordances is warranted.
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46 Notes:

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49 1. Gender is not reported as in the larger study a sizeable proportion of participants
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51 across both text groups opted not to report their gender, as was their right (we did ask about it
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53 but allowed a 'prefer not to say' option, a common practice in UK educational research). It is
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55 also not a focus of the present study.
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3 2. It was not unexpected for the post-test SD to be larger than the pre-test SD as in
4 classroom-based research interventions often do not benefit all learners equally. The greater
5 variation at the post-test, was, furthermore, accounted for by including the by-Participant
6 random slopes for test time points in the analysis.
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