



Bilingualism in the Classroom: Using Latin as an Aid to the Learning of Modern Italian

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Introduction and research context

This research explores the utility of Latin as an aid to the acquisition of modern Italian. Latin is the root of the Romance languages, and consequently many words in Italian derive directly from Latin or are cognate with Latin words. Lexical connections between the languages could therefore prove useful for students learning Italian. The motivations for researching this particular area stem from the current trend of valuing subject areas in terms of their 'utility' to learners. Through this research I hope to show that Latin should be valued not only intrinsically, but also that it has extrinsic value as an aid to learning modern languages.

This research was carried out in a selective independent girls' school, in an urban setting but taking students from a wide area across the county. The class was extra-curricular, composed of nine students who (except one student who joined late) had all studied Latin for at least three years. They were of average-high attainment, with MidYIS scores averaging at 122 (lowest 108, highest 150). These students were all new to learning Italian, and through the lessons were encouraged to use their knowledge of Latin to aid their learning of Italian, focusing on vocabulary acquisition. I devised tasks to facilitate the use of Latin in the acquisition and recall of Italian vocabulary, and to encourage students to

make links between the languages as a method of improving proficiency in the reading of Italian. Students were provided with strategies to aid vocabulary learning, by drawing their attention to lexical connections between the languages in order to facilitate vocabulary acquisition based upon orthographic, phonological and semantic association between words. While the study primarily evaluated the utility of lexical crossover between the two languages as an aid for learning Italian, students were also asked to feed back on the extent to which they felt that the tasks were consolidating their knowledge of Latin. This research therefore takes both a cognitive and a metacognitive approach; the cognitive strand encompassed students completing vocabulary learning tasks, and in turn assessing their response to and the success of these tasks; and secondly on a metacognitive level it encouraged them to reflect on these tasks to refine their approach and thereby facilitate accelerated activation of cognate and derivative vocabulary.

Literature Review

Considerable attention has been given to the subject of vocabulary acquisition in recent years, in particular assessing the efficacy of techniques to facilitate the acquisition of vocabulary in the second language (L2). Literature has tended to

focus on two strands: firstly, *why* vocabulary learning is an important part of language acquisition, and its relationship to other areas of language acquisition such as grammar; secondly, *what* vocabulary learning strategies are most effective in allowing students to learn as well as to retain vocabulary. While the centrality of the role of vocabulary learning is generally accepted in the field of second language acquisition (Oxford, 2011, p. 254), much more debated are the various methods by which a learner can embed vocabulary into the long-term memory (Oxford, 2011, p. 255). This encompasses the strengths and weaknesses of different vocabulary acquisition strategies, and which methods are most efficient for learners. It is important to note, however, that not all learners fall into the same category: different strategies, or different combinations of strategies, are necessary for different types of learners (Nation, 2001, pp. 225-226). For example presenting vocabulary alongside pictures may aid visual learners (Gruber-Miller, 2006, p. 36), while contextual guessing may be a more efficient strategy for comprehension learners than field-independent learners (Oxford, 2011, p. 255).

Resulting from an almost exponential increase of research into vocabulary acquisition in the past three decades (Lightbown and Spada, 2006, p. 96), the importance of vocabulary in Second Language Acquisition (SLA) is almost universally acknowledged. This follows a transition away from an emphasis on

syntax and on morphology in the 1980s. As Lightbown and Spada pointed out: ‘We can communicate by using words that are not placed in the proper order, pronounced perfectly, or marked with the proper grammatical morphemes, but communication often breaks down if we do not use the correct word’ (p. 96). While they do point out that circumlocution and gestures can sometime compensate (a debatable assertion, as the meaning of gestures can vary across cultures), vocabulary is the key to ensuring that *meaning* is fully communicated. A word can be pronounced incorrectly or be used in the incorrect grammatical form, but use the incorrect lexical item and the sense and meaning of the communication are rendered ineffective. While pronunciation and being able to categorise new vocabulary are important, skills such as listening, speaking and writing depend almost wholly upon knowledge of vocabulary. Barcroft (2004, p. 201) models the difference between grammar and vocabulary in terms of conveying meaning with the examples of ‘it snow’ compared to ‘it nevs’, and ‘he want spoon’ compared to ‘he wants a fork’. The first of both sets of sentences is grammatically incorrect, but conveys the correct meaning, whereas the second of each pair is grammatically correct, but the meaning is either incomprehensible or changed due to incorrect use of vocabulary. At a basic level vocabulary is of utmost importance to convey the *meaning* of a communication; other elements, while important to achieve proficiency in a language, serve to raise the *accuracy* of communication.

My research investigated whether the process of vocabulary acquisition and retention in Italian could be accelerated by the use of Latin derivatives and cognates. Vocabulary is central to achieving not only basic communication, but also higher proficiency in the target language. The size of vocabulary needed to reach conversational proficiency in a language is significant: the Italian language is estimated to comprise of anywhere between 215,000 and 270,000 distinct lexical units, resulting in over 2 million usable forms, of which a native speaker will know about 20,000 word families. A learner will need a vocabulary of about 2,000 words to be able to participate in everyday conversation (Lightbown and Spada, 2006, p. 96). As Oxford (2011, p. 254) notes, academic

achievement in a language rests largely upon vocabulary knowledge, a conclusion which reinforces that emphasised repeatedly by Nation (1990, p. 2001). In contrast with, for example, grammar rules, which can be learned and then be reused and applied to any word or sentence, the quantity of words necessary to achieve a conversational level of communication can appear daunting to learners, not only in the learning process in the first place, but then in the retention of vocabulary, particularly if not used frequently.

Vocabulary learning strategies are an indispensable tool for this reason, as learners need an extensive vocabulary which can be readily accessed. However, after several years of study, many adult learners know fewer than 5,000 word-families, which is roughly the same number as children who are native speakers have when starting school (Nation and Waring, 1997; Oxford, 2011). While Oxford (2011) fails to note the impacts of the different learning environments of a child learning L1 in complete immersion and an L2 learner with an embedded L1, it is true to say that adult learners can be hindered in vocabulary acquisition when they do not use the appropriate strategies to learn efficiently. For example, studies on the rote learning of vocabulary have presented us with evidence that it correlates negatively with vocabulary size (see Gu and Johnson, 1996), probably as the mind seems to store words in an organised, interconnected manner, rather than words on a list (Nation, 1990; Oxford, 2011). However, learners themselves viewed it as an essential strategy for vocabulary learning. This was illustrated by Schmitt (1997), who showed that rote oral and written repetition was viewed as important to Japanese EFL (English as a Foreign Language) learners, and that strategies using evidence within the English itself, or parallels across languages were viewed unfavourably. This suggests that personal or cultural perception can influence the choice of strategy, leading to inefficient vocabulary learning. This reinforces the point made by Nation and Waring (1997) and Oxford (2011) that poor choice of strategy can inhibit effective learning. As Aebbersold and Field (1997) make clear throughout their research, many exposures to a word are needed in different contexts before it is added to the long-term memory (this is the issue with rote learning, which

lacks the contextual element). The evidence shows that the effective deployment of vocabulary learning strategies can often help this process (Oxford and Scarcella, 1994).

Vocabulary learning strategies have the following features:

- 1) they involve choice, meaning that there are several strategies to choose from;
- 2) they consist of several steps;
- 3) they require knowledge and benefit from training; and
- 4) they increase the efficiency of vocabulary learning and use (Nation, 2001, p. 217).

Multiple studies have found different vocabulary learning strategies to have had positive effects. Oxford (2011) summarises the strategies which have received positive support from either empirical or theoretical studies, including: using or creating vocabulary clusters or webs (Nation, 1990; Oxford, 1990); TPR (Total Physical Response) techniques and use of real objects for vocabulary learning (Oxford, 1990; Thornbury, 2002); dictionary look-up (Gu and Johnson, 1996; McDonough, 1999); the ‘keyword technique’, linking sounds and images (Beaton, Gruneberg and Ellis, 1995; Oxford, 1990); early and self-initiated use of new words (Gu and Johnson 1996; Oxford, 1990); selective attention, note taking, and reading for vocabulary learning (Gu and Johnson, 1996); linking new information with existing information and keeping a vocabulary book (Oxford, 1990); mentally linking synonyms, constructing meanings and analogies, using personal experiences to develop vocabulary, and making t-charts (Oxford, 1990). Contextual guessing has received mixed responses, with Oxford (1990) praising it, and Gu and Johnson (1996) finding that it correlated with vocabulary size and overall proficiency. However, Lawson and Hogben (1998), in a study of Australian learners of Italian, showed that a rich context reduced the need to actually know the word. They noted that learners were able to infer the meaning without paying attention to the word itself. Contextual guessing has also met criticism through studies which show that the learner needs to know

approximately 95% of the surrounding words to be accurate in their guess. Nation (2001, p. 233) concludes that students need to know 19 in 20 words to be able to guess successfully the meaning of a word from context; one in ten unknown words has shown little successful guessing (Laufer and Sim, 1985b; Bensoussan and Laufer, 1984), and one in 50 is the optimum. This is not to say that contextual guessing is not a helpful strategy; in relation to using cognates and derivatives as a strategy, using context may help students check and confirm they have ascertained the correct meaning of a word.

My research concerned the strategy of using derivatives and cognates from Latin to aid the acquisition of Italian as L2. A derivative is defined as the formation of a new word or inflectable stem from another word or stem; these words are etymologically related, but have changed in form over a period of time. An example is the Latin *laborare* changing into the Italian *lavorare*. Cognates are words which have the same linguistic derivation as another and are ‘the vocabulary items in two different languages that are similar both orthographically and semantically’ (Solak and Cakir 2012, p. 431); in Italian there are words which we can label cognates with the Latin as the root word has itself not altered in its basic form, for example, the Latin *tristis* and the Italian *triste*. Takač (2008, p. 62), while recognising that looking at the etymology of words could benefit learners, considers using cognates as a strategy largely ineffective: ‘although the strategy of word formation analysis, especially if it includes attention to etymology, that is to cognates (cf. Bellomo, 1999), can be very useful, its contribution seems irrelevant if the learner has already successfully inferred the word’s meaning from the context.’ This research in my study aimed to consider whether this assertion was true or not, and what (if any) benefit learners gained from using cognates as an acquisition strategy.

There has been a variety of studies carried out on the use of cognates in SLA, although the area is not nearly as extensively researched as some of the other vocabulary learning strategies mentioned above. The research into the use of derivations to aid L2 acquisition is even less researched, and with regard to Latin has been more commonly looked at

in terms of improving vocabulary knowledge in the L1. While there does exist a number of studies into the utility of cognate use as a vocabulary learning strategy (eg. Holmes and Ramos, 1993; Kroll *et al.*, 1998; Lotto and De Groot, 1998), the research has looked exclusively at the use of cognates between L1 and L2, rather than an L2 and an L3, an area which my study will focus on. These abovementioned studies of bilingualism and cognate use have focused on learning two modern languages, and consequently there is little research on whether using derivational morphology as a learning strategy aids vocabulary acquisition in a language. Studies do, however, tend to note the importance of Latin as a common root in European languages sharing cognates (Otwinska, 2016, p. 87). It is therefore surprising that there is little research into the use of Latin as a facilitator in the vocabulary acquisition of such languages, when its importance has been noted in the lexical similarities between European languages. My study therefore sat in this gap with the aim of investigating the efficacy of Latin derivatives and cognates as a vocabulary acquisition tool in learning Italian, filling the gap left by the lack of L2-L3 studies.

Research seems largely agreed on that the ability to utilise cognates and derivations can help learners process and retain vocabulary, particularly in a reading setting. Nation (2001) discusses the value of learning the etymology of a word for learners of English, and concludes that understanding the procedures by which words are formed can help the learning of the words themselves; ‘the value of etymology for learners of English is that it can help make some words more memorable. That is, it can help learning’ (Nation, 2001, p. 280). Nation, however, provides no evidence of any study to back up this claim. Retention of vocabulary, essentially whether knowledge of Latin roots makes Italian words more memorable, formed part of my research to assess the veracity of Nation’s assertion. Nation also points out that the study of cognates and loan words may be especially useful when there are significant changes to the forms of the words, though in these cases the need to actively point out connections is paramount, as learners themselves may not be able to make the connections initially of their own accord.

Otwinska (2016) discusses the evidence produced by studies into cognate vocabulary in language acquisition. She concludes that cognate words are easier for learners to learn in the first instance, and then to retrieve later on. Several studies back up this conclusion, and indicate advantages of using cognate recognition as a vocabulary learning strategy over other techniques. For example, Kroll *et al.* (1998) and Lotto and De Groot (1998) contrasted various word association and picture association methods, and vocabulary learning within both paradigms ‘revealed a huge advantage of cognates over non-cognates’ (Otwinska, 2016, p. 80). The study carried out by Lotto and De Groot (1998) tested the learning of 80 Italian words by 56 adult Dutch learners previously unfamiliar with Italian. The evidence showed overwhelmingly that ‘cognates and high-frequency words were easier to learn than non-cognates and low frequency words’ (Lotto and De Groot, 1998, p. 31). The cognate pairs used in the study were similar in orthography and phonology, so it was concluded that the learner’s recognition of either type of relationship (or both) might facilitate learning. Although, as Barcroft (2004, p. 201) emphasises, vocabulary learning is semantic rather than form-based, cognates have the added value of similar orthography and/or phonology to reinforce the semantic meaning.

Several theories have been put forward about the facilitating effects of cognateness on vocabulary learning, all concerning how vocabulary is processed and stored in the mental lexicon. Lotto and De Groot (1998) and De Groot and Keijzer (2000) have proposed the three possible reasons for enhanced learning of cognate vocabulary:

- 1) if the word is an orthographic neighbour, there is less to be learned;
- 2) cognates act as a stimulus for the retrieval of the word in L1; and
- 3) a cognate relation can be considered a case of morphological relation which may exist between words within the same language (although this assumes that bilingual/multilingual memory is organised by morphology, the same as monolingual memory).

These proposals all return to the same key idea: learning a cognate word is easier than learning a non-cognate word as it only involves adapting what already exists in the brain, rather than creating a new representation. Otwinowska concludes that ‘the learning process is less demanding for the learner, which results in the effects of enhanced learning’ (Otwinowska 2016, 82).

It is agreed that ‘learners will find one language far easier to learn than another if the one language shows many lexical similarities with their native language and the other does not’ (Odlin, 1989, p. 79). Research on groups of closely related languages has found that ‘cross-linguistic similarities provided by cognate pairs aid understanding in an unknown language’ (Otwinowska, 2016, p. 82). Studies such as Gooskens and Van Bezooijen (2006), Gooskens *et al.* (2011), and Vanhove (2014) have looked at receptive bilingualism and multilingualism in closely related Germanic languages, and have demonstrated that cognate pairs aided understanding in the L2. Otwinowska (2016, p. 82) suggests that we can therefore assume that the same would be true of other related European language clusters, for example the Romance languages. However, while this is a logical conclusion to reach, no evidence is provided to substantiate this claim. Otwinowska (2016, p. 85) also notes that a ‘considerable bulk of modern vocabulary in European languages derives from Latin or Greek’, and it is therefore surprising that there is little research into how utilising knowledge of these ancient languages can help a learner of a closely related modern Romance language. This might be owed to, as Nagy and Townsend (2012) conclude, the fact that words derived from Latin are more common in formal styles of L1 and more academic discourse, implying that use of derivations from Latin, or indeed use of cognate pairs between languages descended from Latin, has been perceived to only become more effective as a strategy once a learner is beyond conversational proficiency. As the participants in my study were beginners in Italian, I had the opportunity to assess this claim, and to see whether cognate pairs could be an effective strategy *before* students reach conversational proficiency (providing the students were given the correct strategies to employ).

The three theories put forward about facilitating effects of cognateness by Lotto and De Groot (1998) and De Groot

and Keijzer (2000) imply that the way cognates are stored and retrieved in the mental lexicon make them a valuable asset to language learners. However, there are ‘surprisingly few pedagogically orientated studies, and the evidence they produce is mixed’ (Otwinowska, 2016, p. 85). Some learners find it difficult to take advantage of cognates, even if they are obvious; teachers prefer to draw learners’ attention to ‘false friends’ rather than cognates, resulting in an ‘innate suspicion of cognates on the part of the learner’ (Otwinowska, 2016, p. 91). Studies repeatedly show that learners either ignore cognates, or do not notice them in the first place, including those conducted by Banta (1981), Dressler *et al.* (2011), Kellerman (1983), Lightbown and Libben (1984), Nagy *et al.* (1993), Odlin (1989), Otwinowska-Kasztelanic (2009, 2011a), Schmitt (1997), Singleton (2006) and Swan (1997). Odlin concludes that ‘more and more research on contrastive lexical semantics shows that recognition of cognates is often a problem. Learners may not always note the formal similarities that mark a cognate relation, and they may not always believe that there is a real cognate relationship’ (Odlin, 1989, p. 79). The question to be resolved therefore appears to concern methods to help learners recognise and activate cognate vocabulary.

Some classroom studies have returned positive results on cognate use. Holmes and Ramos (1993) ran a study on Brazilian undergraduates, who were beginners in English and were given texts to read. Data were gathered using the ‘think-aloud’ method. This method of data collection contained a methodological flaw in that students were put into groups to recognise cognates, so it is not clear whether *all* students recognised them or not. Nevertheless, it seems that Holmes and Ramos accurately predicted a suspicion of cognates, due to the idea of ‘false friends’. It also appears that the learners naturally sought out cognate vocabulary to aid understanding. Ard and Homburg (1983) compared a group of Spanish L1 learners of English as L2, with a group of Arabic L1 learners of English as L2. They found that the Spanish group progressed more quickly than the Arabic group as they were able to recognise cognates, and also had more time to concentrate on the unfamiliar non-cognate vocabulary. Both of these

studies, as with most studies of cognate vocabulary, have been conducted with learners of English L1-L2. It therefore seems necessary to see whether similar results could be replicated within different language clusters, and from L2-L3, as was examined in my study.

The majority of classroom studies have found that learners tend to either avoid cognates or remain oblivious to their relationship with words in their L1. Lightbown and Libben (1984) conducted a classroom study of French L1 learners of English. The students watched a film in English which contained obvious cognates, and then had to write a summary in English, followed by a summary in French. The cognate words did not reappear in the French essay. The groups also underwent a test and a word acceptability task to activate cognate vocabulary; however learners were still reluctant to utilise the cognate words. They concluded that learners need to encounter cognate words in specific context in the TL before accepting them and attempting to use them. Similarly, Nagy *et al.* (1993), found during a study on Spanish bilingual and biliterate teenage students of English that students struggled to recognise cognate vocabulary. They were given a yes/no multiple-choice vocabulary test in Spanish and English to check their word knowledge, and then asked to search for cognates in a text. The participants only circled about half of the words in the text they had already shown that they knew, indicating that they were unable to recognise and capitalise upon cognate vocabulary. This indicates that ‘although cognates may be deliberately used in language texts, if they are not explained, many students never see the relationship of these cognates to words in their own language’ (Rubin, 1987, p. 16). Holmes and Ramos (1993) interestingly also suggest that teachers who are native speakers of the target language are at fault for perpetuating the inability of learners to access cognate vocabulary. If they do not share the learner’s L1 then it is impossible for them to facilitate the use of cognate vocabulary.

Otwinowska concludes that ‘proficiency is key in using cognates as a vocabulary acquisition strategy’ (2016, p. 124). She points to Brenders *et al.* (2011) who postulated that cognates only help in the L1 if the L2 proficiency is

high. In L2 they can recognise cognates from L1, but not the other way around until the L2 is proficient. However, this seems somewhat contradictory. For vocabulary acquisition in an L2, this evidence indicates that actually a learner *doesn't* need to be proficient to be able to recognise cognates in L2 using their knowledge of L1, they only need to be proficient in L2 to unlock benefits in their L1 as well. Poarch and Van Hell (2011) also show that cognate effects are smaller in L1, but larger in L2 and L3 processing. Rather than proficiency being the key to unlock cognate vocabulary, the evidence appears to show that the ability to *recognise* cognates is what determines its success as a vocabulary acquisition strategy, rather than the proficiency of the learner. In Nagy's 1993 study even the Spanish bilingual subjects had difficulty recognising cognate vocabulary. This implies that for learners of a second language it is the need to develop strategies to recognise and utilise cognates rather than simply proficiency level in L2 and L3 which is important. As my study was conducted with beginners, I was able to assess the merit of strategies over proficiency in the activation of cognate vocabulary.

Tréville (1996) conducted a study which indicated that learners need training in strategies to recognise cognates to make it an effective vocabulary strategy. He split the subjects into two groups; the experimental group received training in cognate recognition, and the control group did not. The study found that the experimental group were more efficient at identifying cognates, their grammatical categories, and their lexical rules than the control group was. This indicates that equipping learners with strategies helps them benefit from cognate vocabulary. Surprisingly, the research on training students to utilise their existing language knowledge to work out new vocabulary is sparse, and focuses on the learning of English as a foreign language. As most studies across all areas of cognate research have involved using cognates between students' L1 and English as an L2; there is a notable absence of research into using an L2 to aid vocabulary acquisition in a L3. Further missing from research is the student voice concerning the use of derivatives and cognates as a vocabulary acquisition strategy; Nyikos and Fan (2007) noted the need to pay

more attention to the learner's own voice, that is their own perceptions about cognitive processes involved in various acquisition strategies, and which strategies they themselves found most effective. My study will approach these areas in accordance with the gaps in research.

Research questions and lesson sequence

This study focused on vocabulary acquisition and retention, using cognates and derivatives between two languages from the same family, Latin to Italian, as a learning strategy. The following research questions were addressed:

1. Does learning Italian vocabulary utilising Latin cognate and derivative-based materials affect students' vocabulary retention?
2. Does providing students with strategies to identify Italian words based on their knowledge of Latin help with reading Italian?
3. Do students find it useful to make links between Latin and Italian as a method of acquiring and retaining vocabulary?
4. Is proficiency a barrier to being able to use cognate vocabulary?

The study was conducted with nine students. None had prior knowledge of Italian, and all but one studied Latin for at least three years. Lessons (five of 30 minutes, once a week) were designed to provide students with cognate recognition strategies and check vocabulary recognition and retention. Lesson 1 introduced students to common Italian words closely derived from Latin and the focus was upon drawing out orthographic and phonological similarities between the Italian and Latin. Students completed a survey following the lesson commenting upon their experience of working out word meaning using their Latin. Lesson 2 continued introducing students to more vocabulary, and included a quiz on the words learnt in lesson 1 to check retention. Lesson 3 focused on a reading activity containing derivatives and cognates chosen because they were

etymologically related to Latin words students studied in the first⁴ book of the *Cambridge Latin Course* (Cambridge School Classics Project, 1998). This assessed student ability to recognise cognate vocabulary in unfamiliar contexts. Students worked in pairs and talked through their process in translating words and phrases. Lesson 4 introduced students to two sets of Italian adjectives, one with Latin prompts but no English, one with just English, no Latin. Students completed speaking activities using both sets of adjectives. Students filled out a survey following the class commenting upon their use of Latin in working out meaning. Lesson 5 included a quiz to check retention of the adjectives and see whether those learned with the Latin were more effectively retained than those learned without.

Data and Findings

Lesson 1. Following the activities carried out in the lesson, students were asked to fill out a survey on whether they were able to use their existing knowledge of Latin to work out the Italian vocabulary, and whether they found using derivatives a useful method of vocabulary learning. Of the six students who completed the survey, five responded very positively to using derivatives, and one had a mixed response. Positive responses included: '[Derivatives are] very helpful as they help you to understand something when you wouldn't normally be able to. [It] makes it easier to remember a word if you can link it to something that you already know and can remember in another language.' Only one student responded with mixed feedback: 'Sometimes helps me, however other times also confuses me more.' Students reported that the words they found easier to work out were ones which were more similar or identical to the Latin, such as *dormire*, *sedere*, *amico*, *venire*, and *cibo*. Words that they reported to find slightly harder included *fiume* (*flumen*, *fluminis*) and *giudice* (*iudex*, *iudicis*). Some students were unable to work out the Italian as they did not know the Latin cognate. The word which caused most difficulty was *giudice*; one student commented 'It did not look like the Latin word'. In Latin, some 3rd declension nouns which undergo a stem change form derivatives in Italian using the ablative, for example *index* (abl. *iudice*) becomes *giudice*,

vox (abl. *voce*) becomes *voce*, *nox* (abl. *nocte*) becomes *notte*. The students, who were only looking at the nominative *index*, were unable to make this link themselves, indicating they needed more training in specific strategies to recognise how words have derived. Some students commented that they were also able to use their knowledge of Spanish to help them work out some words. Students responded positively to the idea that using Latin derivatives as a vocabulary learning strategy in Italian would help them also improve their Latin, 'as you can link derivatives'.

Lesson 2. Students completed a quiz individually on the Italian vocabulary they learned in the previous lesson. Students recalled vocabulary exceptionally well; of the six in attendance during that lesson, four got 9/10 and two got 8/10. All students also successfully recalled the Latin when asked. This seems to reinforce the student perception that linking the two languages would help them better remember vocabulary in both. During the quiz we recapped common derivation changes, such as the interchangeability of 'v' and 'b', and some Italian nouns looking like the ablative of third declension Latin nouns. The only word which caused an issue was the Italian *negozio* (shop), from the Latin *negotium* (business). In contrast with research, which has shown that students tend to be suspicious about false friends, all the students chose 'business' rather than 'shop' as the translation, implying that this phenomenon could be avoided if students are presented with the idea that using derivatives and cognates is more helpful than false friends which can be a hindrance.

Lesson 3. In the reading activity students worked in pairs to work out a translation of text which contained a selection of Italian words with Latin cognates. Students discussed their translating aloud, allowing me to note down their thought processes. We then discussed the correct translation of the text on the whiteboard, identifying how students worked out the vocabulary, and which words they identified as cognate or derivative vocabulary. In contrast with previous studies, which found that students tended to ignore or not recognise cognate vocabulary in reading situations, my observations revealed students actively looked for cognate vocabulary and words derived from Latin. For

example, students were all able to work out words such as *provare*, *abitare*, *sempre*, *dare* and *cenare* by recognising them as derivatives from Latin, and applying strategies such as the 'v'/'b' interchangeability in *provare* to recognise the root word. In some cases, students needed prompting to recall strategies, such as with *voce*. When reminded that *giudice* derived from the ablative of *index*, students worked out that *voce* would derive from *vox*, and then correctly concluded that it meant 'voice'. Similarly, with *avere*, students needed prompting on the strategies they could use; reminding them how they worked out *abitare* helped them realise there could be an 'h' dropped from *avere*, and then from *habere* they applied the 'b' to 'v' rule to get the Latin *habere*. This suggests that cognate recognition can in fact be a useful strategy before learners reach conversational proficiency, as long as they are provided with techniques, contradicting Otwinowska's assertion that proficiency is the key to using cognates as a strategy (2016, p. 124).

Using multiple methods of working out vocabulary in conjunction with each other appeared to enhance and render more accurate the strategy of using derivatives and cognates. For example, using context to work out meaning helped some students narrow down which Latin word the Italian word was derived from. Two students made a link with the Latin *lavare* when they saw *lavora*, but they commented that 'wash' didn't make sense in the context, and *lavare* didn't have an 'o' in it. When I asked what other Latin word it looked similar to, they then came up with *laborare*, and remembered the 'v'/'b' interchangeability, then realised that *lavora* was a conjugated form of *lavorare* rather than a different word. This indicates that students can combine cognate/derivative strategies with other strategies to refine their guessing and increase accuracy, contending with Takač's (2008, 62) assertion that using cognates can be irrelevant and secondary to contextual guessing. Instead it appeared that students could use cognates and context together to refine their guessing and confirm the meaning. Another point of interest which arose was the distinction between orthographic and phonological cognates. Students all experienced a bit of difficulty with the word *voglio*. Several were pronouncing it *vog-lio* and were unable to make any connection with existing

vocabulary they knew in other languages. However, when I told the class that it was pronounced *vo-lio*, students were able to link it with *volo* in Latin. This indicates that an over-reliance on orthography can be limiting for learners, and it is necessary to combine both orthography and phonology to be more effective at making links between cognate and derivative vocabulary.

There were, however, several words that students struggled to work out using Latin derivatives as a strategy. While students found and successfully translated the vast majority of cognate/derivative vocabulary within the text, the words *capo*, *quotidiane*, *neve* and *inverno* could not be deciphered by students using their knowledge of Latin. When going through the text as a group, it transpired that students simply did not know the Latin words *caput* or *nix* (abl. *nive*) that would have helped them with *capo* and *neve* respectively. For several students, their knowledge of Latin/romance languages was not broad enough to notice that sometimes a 'q' can be interchangeable with a 'c' to work out that *quotidiane* derives from *cotidie*, without being given this beforehand. This implies that students need to specifically be given a strategy for them to be able to use it effectively; this agrees with literature which says that cognates can go unnoticed unless students are equipped with strategies. Interestingly, the four students who were also studying Spanish made the connection between the Italian *quando* and the Spanish *cuándo*, but then failed to notice the same pattern between the Italian *quotidiano* and the Spanish *cotidiano* (students with only Latin did not make any connection between *cotidie* and *quotidiano*). Prior to this as a group we had not met any derivatives with the c/q pattern so it would seem that students need to encounter the pattern multiple times, and have it confirmed by the teacher as a rule before being secure of using it as a guessing strategy.

Lesson 4. Students had to use their knowledge of Latin to work out the meaning of a selection of Italian adjectives, and then were given the Latin roots. Students were then given a second set of adjectives with only English translations instead of using the Latin, before completing an oral activity to practise using both sets of adjectives. Students completed a survey afterwards

commenting on how they worked out the adjectives and how difficult they found them. All students had been able to work out some words, with those having studied more Latin able to identify more words using it. Of the students who had studied Latin the feedback was overall positive about using it as a strategy to work out Italian vocabulary. One student commented that they were able to work out *irato, alto, comodo, contento, dolce, difficile, facile, felice, fedele, forte, magnifico, pieno, solo, splendido, triste* 'because they are similar to the Latin and some to Spanish', while another said 'I was able to work out the majority of the adjectives without help. I was able to recognise them as the words were very similar to the words with the same meaning in Latin'. Positive feedback about using derivatives/cognates as a strategy included: '[it does help] as you can link them more easily and through remembering the Latin you can remember the Italian' and 'because some words look similar, they are easier to remember'. This reflects what the theoretical studies have concluded about lexical-processing; cognates involve adapting what the brain already knows, rather than creating a new representation of a word, and the item is therefore easier to learn and recall. Several students also reported that using their knowledge of Spanish and French was also a useful strategy to help them work out the words, where their proficiency was higher in these languages than Latin. The eight students who had studied Latin for at least three years responded positively to the idea that learning Italian in this way would help them with their Latin, as they could learn Latin vocabulary in parallel.

Lesson 5. In the final lesson students completed an individual quiz on the adjectives learned in the previous lesson to check retention. Students performed better on the questions about adjectives they had learned using the Latin. Where tested on adjectives they had learned using only the English, performance was a lot more mixed. Only three out of nine students remembered the word *magro* and only one out of nine recalled *cattivo*, which we did without looking at a Latin root. In contrast, all students remembered *comodo* and *fedele*, and eight out of nine remembered the words *facile, triste, dolce*, and *pieno*, all of which we had learned using the Latin roots and were closer in orthographic form to the Latin. After

each question, I asked the class if they remembered the Latin words from which the Italian was derived, and all students were able to recall the Latin *commodus, fidelis, facilis, tristis*, and *dulcis*; only one student remembered *plenus*. We had only encountered one instance of a consonant + 'p' changing to a consonant + 'f' before – *flumen* to *fiume*, which had been one of the words students had signalled as being harder to work out in the first lesson. However, now prompted by the change of *plenus* to *pieno*, students recalled *flumen* to *fiume* when asked. The results from the quiz indicate that students appeared to have remembered the Italian more effectively where they have used Latin derivatives as an acquisition strategy.

Conclusions

From this research it appears that derivative and cognate recognition strategies are an effective aid in vocabulary acquisition, although it requires teachers to equip learners with strategies to recognise and utilise cognates and derivatives otherwise vocabulary can go unnoticed. The first research question, concerning whether learning Italian vocabulary utilising Latin cognate and derivative-based materials would affect students' vocabulary retention, was assessed by the quizzes taken by the students. Students retained Italian vocabulary more effectively when they had made links with the equivalent vocabulary in Latin; this corroborates the theoretical evidence suggesting that cognates are easier for students to learn as they involve only adapting what is already in the brain, rather than creating a new representation (Otwinowska, 2016, p. 82). The second research question of whether providing students with strategies to identify Italian words based on their knowledge of Latin helped with reading Italian was slightly more difficult to assess. Students, when completing the reading activity, were able to employ several difficult strategies to recognise cognates, and used this to their advantage in carrying out the translation. However, the ability to recognise cognate vocabulary relied on the students' knowledge of Latin words; in the absence of knowing the specific Latin word the Italian was

derived from, students could not benefit from strategies. Furthermore, students needed to be equipped with strategies and have patterns confirmed to them before becoming comfortable using them freely to work out cognate and derivative vocabulary. The third question addressed the value which the students themselves assigned to using cognates and derivatives as a method of vocabulary acquisition. Students responded positively to using cognate and derivative vocabulary; they commented that it helped them both work out the meanings of unknown words in the first place, as well as increase the retention of the vocabulary. The fourth and final question addressed whether proficiency would act as a barrier to activating cognate vocabulary, as Nagy and Townsend (2012) posed that Latin derived terms are typically found in more academic discourse, and Brenders *et al.* (2011) concluded that cognates only help when proficiency in the target language is high. However, I found that, despite being beginners, my class was able to make use of cognate vocabulary to work out Italian words when equipped with strategies.

The study, however, was limited in several aspects. Firstly, the size of the group (nine pupils) prohibited the collection of a more diverse set of data and the examination of wider trends; the research is of too narrow a scope to reach a concrete conclusion on the utility of cognate and derivative vocabulary. Due to this research having been conducted during off-timetable classes rather than in timetabled lessons, it was also difficult to gather student feedback about the tasks carried out; not all students responded to the questionnaires, so we may not have the full picture. The main issue that presented itself during the research was that, although most students had studied Latin for at least three years, several of the students had studied Spanish for longer and to a higher level than they had Latin. Thus, while the Latin-only students were focused on using the Latin derivations to find the meaning of the Italian, it is hard to know whether the Latin-Spanish students recognised words in the first instance because of the Latin or Spanish connections. However, irrespective of the language they used to do so, they were able to recognise the cognates and employ strategies to decode the meaning of the Italian.

While results were positive in terms of both the effect of using cognates and

derivatives as a vocabulary acquisition strategy, as well as in terms of learner perception of its utility, the scale of the research is too small to be of statistical significance. Given especially that the area of strategies to facilitate student use of cognates and derivatives has been relatively under-researched in comparison with other areas of vocabulary acquisition, it is important that further research is conducted in this area. In addition, the tendency of studies to focus on using cognate pairs between L1 and L2 means that using L2 vocabulary to learn L3 is under-researched. Furthermore, this study has primarily worked with receptive skills, rather than productive skills; while the results were positive in terms of recognition and translation of vocabulary, there was little scope to test whether the same effect is mirrored in the students' productive lexicon. Lightbown and Libben's (1984) study did suggest that students will not be comfortable activating cognate vocabulary in production. However, their study did not provide learners with cognate awareness strategies or training. It would therefore be interesting to see whether students who are provided with strategies to maximise cognate use show better results in reusing cognates in productive tasks.

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