

DERIVATION IN FINNISH UPPER SECONDARY SCHOOL ENGLISH
L2 TEXTBOOKS

Master's Thesis

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<p>Tiivistelmä – Abstract</p> <p>Sananmuodostus on keskeinen taito kielten oppijalle; se auttaa paitsi sanavaraston laajentamisessa, myös edistää oppijan lukutaitoa vieraskielistä tekstiä lukiessa. Tästä syystä on tärkeää tarkastella, kuinka sananmuodostusta opetetaan viimeistään toisen asteen opetuksessa, esimerkiksi lukiossa. Tässä tutkimuksessa tarkastelukeinoksi valikoitui lukiotason oppikirjojen tutkiminen, koska erityisesti kielten opetuksessa oppikirjoilla on todella suuri rooli opetuksen sisältöjä ja muotoa koskevia valintoja tehtäessä. Tavoitteena oli selvittää, kuinka lukiotason oppikirjoissa opetetaan sananmuodostamisen tuottoisinta osaa- aluetta, sananjohtamista, ja erityisesti millaisia sitä käsitteleviä harjoituksia kirjoissa on.</p> <p>Tutkimuksessa analysoitiin kahden englannin oppikirjasarjan kaikkia pakollisille kursseille tarkoitettuja kirjoja, yhteensä 12:aa oppikirjaa. Analyysimenetelmänä käytettiin laadullista sisällönanalyysia. Kaikki oppikirjat luettiin läpi useampaan kertaan, ja kaikki löydetty relevantit harjoitukset ja informaatio-elementit luokiteltiin induktiivisesti niistä itsestään löytyvien, toistuvien piirteiden perusteella.</p> <p>Tutkimuksen tulokset osoittavat, että oppikirjoissa sananjohtamisesta oli verrattain vähän kirjallista informaatiota, mutta suhteessa tähän harjoitukset olivat hyvinkin monipuolisia. Yleisimmin harjoituksissa oppilaita pyydettiin johtamaan uusia sanoja affikseja käyttämällä. Oppikirjasarjojen välillä oli suuria eroja paitsi harjoitusten ja kirjallisen informaation määrässä, myös niiden tyypeissä. Lisäksi huomattavassa osassa muutoin relevanteista harjoituksista ilmeni piirteitä, joiden vuoksi käytetyllä analyysimenetelmällä oli vaikea sanoa tarkasti, kuinka suuressa määrin harjoitus käsitteli nimenomaan sananjohtamista. Sananjohtaminen oli esimerkiksi joissain tapauksissa yhdistetty taivutukseen, nimenomaan affiksien käyttöä koskien. Tulevaisuuden oppikirjoihin kannattaisi sisällyttää enemmän harjoituksia sananjohtamista koskien, ja erityisesti lisätä kirjallisen ohjeistuksen ja esimerkkien määrää sekä oppimisen varmistamiseksi että itseoppimisen tukemiseksi. Tulevat tutkimukset voisivat selvittää sananjohtamisen opettamista muunkin tason oppikirjoissa, sekä sananmuodostamisen opettamista laajemminkin, jolloin tuloksille saataisiin enemmän vertailukohtia.</p>	
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1. Introduction

Learning English requires, fundamentally, not only understanding the rules of the language as a system (the grammar), but acquiring a great deal of vocabulary. This is something I can attest to personally, after learning English as a second language (L2) for over 17 years. It would seem that to become a competent user of the English language, one should be given tools – the ability to derive new word forms – and knowledge to use those tools. This would enable one to create at least some of the necessary words from smaller lexical units, thus acquiring a similar level of vocabulary knowledge in a more easy and adaptable manner. Comprehension of English would also be facilitated, since learners would be able to better guess the meanings of unfamiliar words that contain familiar pieces, such as affixes. This seems very logical from the learners' point of view, but does it come to pass in L2 education in Finland? That question is naturally far too massive to be answered by a single study. Nevertheless, there exists a very solid set of tools that is uniformly employed in Finnish L2 education, and it is one that can be readily and reliably examined, yet rather rarely is: the textbooks.

The textbooks produced for use in Finnish L2 education are uniformly structured around the national curriculum, and thus follow the structure of the course system in place on the upper secondary school level. Although Huhta et al. (2008: 206) point out that the ideas represented in textbooks translate into direct practice only when they have been in use for some time, and their use varies from one teacher or institution to the next, textbooks are nevertheless the main set of tools available to foreign language teachers. As such, investigating them provides one view of what is expected to happen in foreign language education. Furthermore, there is evidence that their usage is particularly high among foreign language teachers.

A particularly interesting study that came to this conclusion was conducted by Luukka et al. (2008). They found out, among other things, in their large-scale survey of classroom and freetime textual and media practices, that of 324 foreign language teachers who responded, 98 percent described themselves as using textbooks *often* in classroom (Luukka et al. 2008: 94), while over 90 percent also described using

accompanying exercise books and audiovisual materials *often*. This is significantly higher usage of textbooks than, for example, that of the 417 responding first language teachers, of whom 76 percent described their use of textbooks as happening *often* (Luukka et al. 2008: 90). This means that even if it is impossible to predict what teachers actually do in classrooms by analyzing textbooks, it should be possible to at least gain insight into what is it that many foreign language teachers often use as material for their teaching. Thus, the present study aims to examine *English United* and *ProFiles* series of textbooks for upper secondary school level in order to discover how derivation is instructed and exercised upon in them. This is to be achieved by employing qualitative content analysis as the analysis method, with elements of both inductive and deductive analysis so as to capture as large a picture of the data as possible.

The aim of the present study is motivated by four key factors. Firstly, it seems apparent that an important factor in determining one's language proficiency is the size of one's vocabulary, which supports the importance of vocabulary instruction in the foreign language learning context. Secondly, there exists evidence (e.g. Nagy and Anderson 1984; White, Power and White 1989; Nation 2001: 264-267; Nyssönen 2008; Kieffer and Lesaux 2008; Siegel 2008; Zhang and Koda 2014) that, in particular, direct instruction in word formation could help facilitate vocabulary learning. Thirdly, research has shown that textbooks are, in Finnish foreign language education, highly important tools frequently employed by teachers (Luukka et al. 2008; Huhta et al. 2008). Besides the national and local syllabi, they certainly influence what is taught and how. Here it must be noted that neither the national syllabus for upper secondary schools (Lukion opetussuunnitelman perusteet 2003) nor the official draft for the new one (Lukion opetussuunnitelman perusteet 2015 / Luonnostekstiä 14.4.2015) directly mentions how vocabulary should be instructed.

The fourth key factor rises from the previous three: even though it would thus seem reasonable to assume that at least some research has been done on how word formation is instructed in textbooks, this is not the case. Seeing how instruction in word formation could be particularly relevant, and that Finnish foreign language education is often on the practical classroom level, to an admittedly variable extent, guided by the contents of the textbooks, one would assume that there has been research on how word formation is instructed in Finnish foreign language textbooks. However, next to no serious research seems to have been done regarding this. Thus, the present study occupies a distinct

niche in attempting to discover something previously unexamined in Finnish upper secondary school textbooks.

I chose qualitative content analysis as the research method because it allows the researcher to understand not only the surface features of the data, but its underlying meaning (Dörnyei 2007: 246; Ellis and Barkhuizen 2005: 257). In other words, qualitative analysis of the content tends to provide answers to not only the question of “what is this phenomenon?” but also questions such as “what is the meaning of this phenomenon in this data?”. In the context of the present study, qualitative content analysis allows reporting not only that “derivation is touched upon in [number] exercises in these two series of textbooks”, but also describing **how** derivation is instructed and handled in exercises and direct forms of instruction, such as informational text boxes that do not necessarily accompany an exercise. The resulting picture of the state of instruction of derivational knowledge in these textbooks is thus more complete than what could be achieved by, for example, counting different types of exercises or instructions on derivation.

Since derivation is but one of the ways in which word formation in the English language takes place, it is important to examine the whole field of word formation and discuss the way in which derivation fits into it. All of this is achieved in chapter two. In chapter three, the process of vocabulary learning, and the ways in which knowledge of derivation has been found to be beneficial to the learners is examined. Also, some examples of research on vocabulary teaching in textbooks that has taken place before are examined. In chapter four, all relevant aspects of the present study are described. Firstly, the two series of textbooks that formed the primary sources of data, *English United* and *ProFiles*, are explored. Secondly, qualitative content analysis as a process in detail is described, followed by a concise, detailed account of how that process progressed in the present study. The results of this process are reported in chapter five, while some of their implications are discussed and certain features of the present study evaluated further in chapter six. Finally, chapter seven concludes the present study and gives some suggestions for further research.

2. Word formation in the English language

Before discussing words and vocabulary in general, it has to be acknowledged that there has been, and will likely continue to be for some time, considerable confusion and/or difference of opinion as to what a word is. There are a number of ways to approach this issue, as well as a considerable amount of variables that must be taken into account (see for example Thornbury 2002: 2-12; Nation 1990: 29-30; Katamba 2005: 10-25; Jackson and Amvela 2007: 57-64), but for the purposes of presenting an overview of English word formation, a rather limited definition of *word* will have to suffice. Defining *word* is not the main aim of the present study, which is why for the purposes of the present study and especially this first chapter, a *word* constitutes a unit that is orthographically distinct, uninterruptible and that may consist of one or more morphemes; for example, *this example sentence* contains three words. This partly acknowledges the definition reached by Jackson and Amvela (ibid.). While it is not unproblematic (see ibid. for some of the issues), it serves the purpose of the present study since word formation is mainly concerned with the written form of the word and occurs on the level of individual words, not phrases or other larger items. Having reasonably defined the construction hereafter referred to as *word*, I will in this chapter present an overview of the ways in which new words are formed in the English language.

2.1 Overview

Most new words in the English language are formed using a variety of lexical processes which include, as described by Yule (2010:55-59): **compounding**, **blending**, **clipping**, **backformation**, **conversion**, making of **acronyms** and **derivation**. Jackson and Amvela (2007:51-52) add to this list by also describing **echoic words** and **ejaculations**. Like Yule, they examine clipping and backformation processes, along with initialisms and aphetic forms, but combine all four into what they call shortenings (Jackson and Amvela 2007:102-103). I will explore and provide examples of all of these processes in this chapter. Katamba (2005:53-56) also considers inflection a part of word building on par with derivation, while additionally considering conversion, stress placement and compounding a part of derivation. These processes are the ones used to literally build new words, but there are two additional ones involved in bringing new words into the English language: **coinage** and **borrowing**. While the processes are discussed

separately in the present study, it is important to remember that the creation of a word may involve the work of multiple processes (Yule 2010: 60).

From the three sources discussed above, it can be seen that there are many possible, equally viable ways to discuss word formation; the grouping chosen for the present study reflects these sources while taking into account the aim of the study. In this chapter, I will first examine coinage and borrowing, after which I will present the actual word building processes. The order of these progresses from **shortenings**, as Jackson and Amvela (2007: 102-103) call them, to what seem to be agreed upon as the more minor word building processes, to derivation, the main interest of the present study. Afterwards I will briefly explain inflection as a word building process.

2.2 Coinage and Borrowing

Coinage is the invention of a completely new word which is today usually based on leaving the capital letters out of trade names for commercial products and using the result to denote the item, such as *aspirin*, *xerox* or *kleenex* (Yule 2010: 53-54). Yule (2010:54) also includes eponyms, new words that are based on the name of a person (e.g. *watt* or *fahrenheit*) under coinage, whereas Jackson and Amvela (2007:51) argue that the process of actually creating a new root word from nothing is to be called, arguably more accurately, root creation. Both Jackson and Amvela (2007:51) and Yule (2010:53) seem to agree that coinage, or root creation, is very rare. Jackson and Amvela (ibid.) also argue that many trade names evolving into words are more often than not inspired by words in other languages, and thus should not be included under coinage. The division between what should, and what should not, be included gets more vague and undefined the more examples one considers. What can be said with certainty, based on the sources examined for this study, is that one of the very few words in contemporary English to be truly considered a root-created, or coined, is *Kodak*, which is described as a purely arbitrary combination of letters by its creator, George Eastman (Jackson and Amvela 2007:51).

Borrowing is the process by which a word is adapted, by changing its sound and/or grammatical behavior, from a foreign language by speakers to their native language, whereas the result of this process is called a **loanword** or a **borrowing** (Jackson and Amvela 2007:38). Yule (2010:54) notes that the name of the process, *borrowing*, is not

technically accurate because, in his words: “English doesn’t give them back”. Katamba (2005: 135) further elaborates that borrowing can be direct or indirect, as illustrated by his examples of *omelette* and *coffee*, respectively; the former has been borrowed directly from French, with minor changes in pronunciation and use, while the latter began as a Turkish word, *kahveh*, and was borrowed into Arabic and then Dutch, *koffie*, from whence it was borrowed into English. This indirect borrowing may make the etymology of a particular word considerably difficult to track down accurately (Jackson and Amvela 2007: 39), as illustrated by Katamba’s examples above. It is useful to note that both of the examples, however, are indeed **loanwords** in Katamba’s (2005: 137) view, in contrast to **loanshifts**, which he treats as another kind of borrowing while Yule (2010: 54) emphasizes it as a special type. Instead of retaining the written and/or spoken form of the word, **loanshifts**, which are also called **loan translations** or **calques**, are direct translations of the meaning of a word or expression into the borrowing language (Yule 2010: 54-55, Katamba 2005: 137) Examples of this include *loanword*, which is a calque from German *lehnwort*, and the name *Superman*, which is again a calque of a German word, *übermensch* (Katamba 2005: 137).

Nation (1990:40) acknowledges that borrowing from sources common to each language is why especially European languages such as English, French and Spanish have a considerable amount of shared vocabulary. Katamba (2005: 135) seems to agree with this, in comparing the English lexicon to a large mosaic. For a more in-depth exploration of borrowing, see Katamba (2005: 135-167) and Jackson and Amvela (2007: 25-55).

2.3 Shortenings

As mentioned in the overview of English word formation, shortenings, as discussed by Jackson and Amvela (2007: 102-103) include the processes of **clipping**, **backformation**, **initialisms**, as well as **aphetic forms**. As is apparent from the heading, the commonality shared by these processes is that they all remove something from the word form they are modifying. **Clipping** retains only a part of the stem, as in *laboratory* → *lab* (ibid.), while trimming something either from the beginning, end or even the middle part of the word (Katamba 2005: 180-182). Many examples of clipping discussed in literature (Jackson and Amvela 2007: 102, Katamba 2005: 180-182, Yule 2010: 56) can arguably be mostly seen as a form of shortcut, in that clipping seems to

be based on making the words easier and/or faster to speak or write. **Backformation** or **backderivation** involves the subtraction of what are perceived as inflectional suffixes from words to create new ones that appear as though they were, and are often mistakenly assumed to have been, the stems of the originals (Jackson and Amvela 2007: 102). The most common example of this seems to be *television* → *televise*. As with this example, backformation often involves the forming of a word of another part of speech (Yule 2010: 56-57), in this case a verb from a noun. In the words of Katamba: “Typically this happens when there is an apparent gap in the lexicon, i.e. there “ought to be” a word from which an apparently affixed word is derived, but there is not” (2005: 185).

Initialisms are a more extreme form of clipping, since the result of the process retains only either the initial letters or syllables of words (Jackson and Amvela 2007: 102-103). They include **alphabetisms** (or *abbreviations*) and **acronyms**, the former of which involves pronunciation of the result with the names of alphabetical letters, while the latter involves pronunciation of the result as an individual lexical item (*ibid.*). Examples of **alphabetisms** well-known to the general public include *VIP* (Very Important Person), *HQ* (HeadQuarters), and *FBI* (Federal Bureau of Investigation), while similar examples of **acronyms** include *NATO* (North Atlantic Treaty Organization), *UNESCO* (United Nations Education Scientific and Cultural Organization) and *NASA* (National Aeronautics and Space Administration). Acronyms may also become established as words to the extent that few people are aware that they are acronyms, as noted by Katamba (2005: 183). An arguable example of this is *laser*, an acronym of light wave amplification by stimulated emission of radiation.

Aphetic forms are a very specific form of shortening, in that they omit an initial unstressed syllable in certain expressions such as ‘*scuse me* or ‘*cause, aphetic forms of *excuse me* and *because* (Jackson and Amvela 2007: 103). To illustrate the division between aphetic forms and clipping, Jackson and Amvela use *professor* as an example: “When pronounced casually, the first, unstressed syllable may be omitted, shortening the word to ‘*fessor* and giving an aphetic form. But when the word is shortened to *Prof*, it is an instance of clipping” (Jackson and Amvela 2007: 103).*

2.4 Minor word building processes

The processes that seem to be agreed upon in literature as being less common, or for various reasons less important, include **blending**, **echoic words** and **ejaculations**. It has to be noted that of the sources examined in the present study Katamba (2005: 194) is the only one to suggest that blending be grouped together with backformation and clipping as shortenings. **Blending** is certainly the most discussed one of these, and involves the combination of parts from word-forms that come from two distinct lexemes (Katamba 2005: 186). Jackson and Amvela (2007: 101) further elaborate the process by describing how it usually involves the combination of the first part of the first element with the second part of the second element, as in their example of *breakfast* + *lunch* → *brunch*, while also noting that the use of blends seems to be more frequent in informal style of certain registers. **Echoic words** and **ejaculations**, by contrast, seem to have received less attention in literature, since Jackson and Amvela (2007: 51-52) is the only source of the ones reviewed to discuss them at any significant length. They describe both types of word formations as relating to the representation or replication of sounds, by means of language. **Echoic** or **onomatopoeic** words originate directly from a sound they are intended to represent, exemplified by words such as *bang*, *burp*, *cuckoo* and *splash*, and can be categorized into two groups (Jackson and Amvela 2007: 51). These are imitative words such as *meow* and *moo*, which attempt to replicate the actual sound, and symbolic words such as *bump* and *flip*, which have a less direct though noticeable association with the sound (ibid.). **Ejaculations** are also concerned with imitating sounds, but more specifically they imitate instinctive vocal responses to emotional situations (Pyles and Algeo 1993, cited in Jackson and Amvela 2007: 51). The group seems small, yet Jackson and Amvela (2007: 51-52) argue that it has become conventionalized and that ejaculations should hence be considered lexical items, as exemplified by words such as *uh-huh*, *phew* and *ha-ha*.

2.5 Derivation

In the literature, there seems to be three different ways of characterizing derivation, which mainly differ in their treatment of the process of compounding; one restricts the term *derivation* to the process of affixation, which is the stance assumed by Yule (2010: 58-59). The second, of Jackson and Amvela (2007: 82-87), includes stress placement

and conversion under derivation while excluding compounding, whereas the third, that of Katamba (2005: 54-72), also includes stress placement, conversion and compounding.

In the present study, derivation is considered to be the creation of new lexical items by using morphemes and words already existing in the language, thus including stress placement, conversion, compounding and affixation, essentially agreeing with Katamba's (2005:54) view. He makes a particularly convincing case for comparing inflection and derivation by stating that it "...highlights clearly the fact that essentially all word-formation boils down to one of two things: either the creation of lexical items, the province of derivation, or the creation of grammatical words, the province of inflection" (Katamba 2005: 56).

Derivation, like inflection, deals with certain word forms, which include **stems** and **affixes**, most of which are **morphemes** in their own right. The **morpheme** is the minimal, or the smallest possible, unit that can carry meaning, or serve a grammatical function in a language, thus including both actual words and parts of words (Jackson and Amvela 2007: 3, Katamba 2005: 29, Yule 2010: 67). **Stems** are some of those actual words, and are described by Jackson and Amvela (2007: 81) as carrying the basic meaning. They can consist of multiple morphemes or a single one, the latter being called a **root** or base (Jackson and Amvela 2007: 81). For example, *unforgivable* is a word that consists of four morphemes: *un-*, *for-*, *give*, and *-able*, of which *give* is the only one that can function on its own and thus constitutes the **stem** of the word, while *un-*, *for-*, and *-able* act as **affixes** in this instance, despite some having a similar written form with a word of different meaning. It is impossible to break *give* into smaller parts, also making it a **root morpheme**. *Un-* modifies the word by giving it a negative meaning, *for-* carries the meaning of declining to (in an abstract sense) *give*, while *-able* is an affix that changes the word into an adjective. In function, both roots and stems may be either free, meaning that they can occur alone, or bound, in which case they cannot (Jackson and Amvela 2007: 81). **Affixes**, by contrast, are always bound since they are used for adding meaning to the stem (*ibid.*); they do not carry any meaning by themselves.

Affixes can be divided into **inflectional affixes**, which are used to modify the grammatical form of the word as discussed above, and **derivational affixes**, which are

used to create new word forms. Both types of affixes can, in the English language, be appended to either before (*im-* + *polite* = *impolite*) or after (*polite* + *-ness* = *politeness*) the root, in which cases they are called **prefixes** and **suffixes**, respectively (Katamba 2005: 52). Also present in many languages other than English is **infix**, which is appended inside the word (Yule 2010: 59). Notably, these are very common in Finnish, such as in *kävelisimme* and *roiskuttaa*. Yule (ibid.) does note, however, that even in colloquial English certain swear words can be used in the manner of infixes, an example of which would be *absogoddamnlutely*.

Jackson and Amvela (2007: 86-87) discuss **derivational affixes**, of which there are more than sixty common different ones in the English language, by pointing out their low functional load, i.e. that they are limited to certain very specific combinations with particular stems, and as such are applicable to individual stems, rather than sets of words. Jackson and Amvela (ibid.) also note that even though derivational affixes may be occasionally distinguishable from inflectional affixes, there are close orthographical parallels as well, such as the suffix *-ed* being both a past participle and a derivational suffix used to form adjectives. As noted in the section discussing inflection, inflectional affixes cannot change the class of the stem, whereas derivational ones can, yet do not always do so. For example, consider how both *consider* and *reconsider* are still verbs (ibid.). Another important difference between inflectional and derivational affixes is in that while inflectional affixes are mostly suffixes, derivational affixes are spread more evenly between prefixes and suffixes (Katamba 2005: 58-63). For a more thorough listing and exploration of the various derivational affixes and protocols involving their use in the English language, see Katamba 2005: 57-64. One last thing to note about inflection and derivation is that while treated separately and frequently contrasted in the present study and the sources, they are not mutually exclusive as pointed out by Katamba (2005: 63); a word can contain both derivational and inflectional morphemes.

Not all derivational affixes are equally productive; some are more commonly used than others, and may have many more stems to which they are commonly attached (Katamba 2005: 100-104). Consider Katamba's (ibid.) example *-ly*, which changes adjectives to adverbs, such as *quiet* – *quietly*; this suffix can be attached to nearly any eligible root, as long as appropriate spelling modifications are made. Compare it with, again an example used by Katamba (ibid.), *-ery*, as in *slavery* or *bravery*, and the difference becomes clear. Whereas *-ery* has fallen out of common use as the English language has evolved,

yet still occurs as part of words such as these two, *-ly* is applicable to a great deal of adjectives in contemporary English. While these two examples illustrate the difference between a productive affix and an unproductive one, it must also be remembered that there exists a continuum of affixes that are productive to a varying degree between these extremes. (ibid.)

Another, rather different, kind of affix is, arguably, the stress on a word. Jackson and Amvela (2007: 87) note that a word consisting of two or more syllables may change its word class without changing its actual form in any other way than its stress pattern; thus, they regard stress as a derivational affix. Katamba (2005: 66) adds that there is also a clear pattern to how this happens: “Stress falls on the first syllable if the word surfaces as a noun and on the second syllable if it surfaces as a verb”. This is evident in all of Jackson and Amvela’s (2007: 87) examples as well, some of which are: *^contract – con^tract*, *^defect – de^fect* and *^present – pre^sent* (the ^ symbol is used here to indicate that the syllable following it is stressed). In some of these examples, some phonological changes also occur in vowel sounds, which is something that Katamba (2005: 66) also notes. Thus, the placement of stress on a word can be used in a manner not entirely unlike derivational affixes.

Compounding involves creation of new lexical items by combining two actual words instead of affixes; the end result of doing so is called a **compound word**. Jackson and Amvela (2007: 92) elaborate that compounds are actually stems that consist of more than one root, i.e. they form words of their own, but consist of other words that themselves carry core meanings, are treated orthographically in an inconsistent manner (*bedside* vs. *car-wash*), and may involve inflection of one of the roots, as is the case in their example of *bird’s eye* [*view*]. Katamba (2005: 67-68) adds to this by pointing out another interesting quality of compounds; they have a head. This means that, usually, the latter part of the compound is syntactically dominant, i.e. its syntactic qualities are passed on to the whole compound, while the syntactically subservient part specifies a characteristic of the head, as is apparent in Katamba’s example *easychair*, which is a noun as defined by the head *chair*, while *easy* describes the *chair*. Some compounds, such as *black market*, may at first glance appear similar to phrases, but can be distinguished as compounds as elaborated on by Jackson and Amvela (2007: 93-94) by certain phonological, syntactic and semantic features. Phonological features include stress pattern and lack of juncture (*black market*= *^black^market* i.e. a shop painted

black vs. *black market*=[^]*blackmarket*), while semantic features include specialized meanings such as a *dustbin* being actually used to collect things other than dust and a *blackboard* being actually a green plastic board. Syntactic features particular to compounds are their specialized uses of certain uncommon word orders as well as their constituents' inability to become individually separated, inflected, or modified. (ibid.)

Another, very common yet relatively simple method of derivation used in the English language is what Katamba (2005: 64) calls zero derivation, while others seem to prefer the term **conversion**, which is the creation of lexical items by changing the word class of the word form without any actual alterations, even in stress patterns. Katamba (2005: 65) presents an excellent example of conversion in practice, by demonstrating the word *jump*:

- a. The pig will jump over the stile!
- b. What a jump!

In this adapted example, *jump* in the a. sentence is a verb, while in the b. sentence it is used as a noun. In a sense, a new lexical item is derived from another without actually doing anything.

To recap, derivation in the English language, as considered in the present study, is in agreement with Katamba's (2005: 54) view. It involves the **affixation** of bound forms either before or after free forms, using **stress placement** as an affix in its own right, **compounding** free and/or bound forms together to form new words, and/or simply forcing the lexical items to behave according to new syntactic rules, which is called **conversion**.

2.6 Inflection

Inflection is a process that uses affixes of a different type than those used for derivation, and is indeed distinct from derivation in that it is an **obligatory process** (Katamba 2005:54) and produces specifically **grammatical forms** of words (Jackson and Amvela 2007:82) such as *lion* → *lions*. Here, obligatory means that while, depending on the context, there may be ways to avoid using derived word forms, such as the use of synonyms of those forms (e.g. *dangerous* instead of *unsafe*), there is no way to produce a grammatically correct sentence without using appropriate inflections. When a word needs to be grammatically modified to fit into a specific co text, it is **inflected**. For

example, in the underlined sentence above, the verb *inflect* receives an **inflectional affix**, *-ed*, which marks a past tense and is described as a relational marker by Jackson and Amvela (2007: 83). It is used to modify the form of the inflected word. According to Jackson and Amvela (2007: 82-83), there are limits to what relational markers can achieve; they can be used to change the ways in which the resultant word form behaves and how it affects the use of other forms around it (e.g. a noun with the possessive marker can be used only to modify another noun), but they cannot be used to change the class of the stem, nor can they be used to create new lexical items.

This is the key reason for discussing inflection separately in the present study; whereas derivation is actually motivated by the need to produce new lexical items (Katamba 2005: 54), inflection is incapable of that, despite its seeming similarity. Unlike derivation, inflection is also obligatory, as reminded by Katamba (*ibid.*). For example, it would not have been acceptable to create the underlined sentence in the previous paragraph without inflecting the verb *inflect*, even if the author had not been personally fond of that particular inflectional affix. The process of inflection is, in a sense, triggered automatically by adjoining syntactic conditions (*ibid.*).

3. Teaching and learning vocabulary

In this chapter, I examine and discuss how word formation relates to the wider context of vocabulary learning and teaching. I will begin with the idea of knowing what a word is by examining the knowledge that one can possess about a word, as well as how that knowledge can be measured and classified, and discussing how words are learned and vocabulary is acquired. After that, I will discuss what makes learning words easy or difficult, including features of the words involved such as length and complexity, as well as the skills and abilities of the learner. I will then move on to discuss what kind of vocabulary learning strategies there are, and how research has shown these strategies to be perceived and utilized by learners, with a particular view on word formation as a component of these strategies. Then, I will discuss how learners can benefit from knowledge of word formation and the ability to use it. I will examine various items of research on what kind of an effect does awareness and knowledge of word formation have on language learning, as well as discuss Nation's (2001) sequenced list of affixes for learners of English. Lastly, in light of the present study's method of examining

English as foreign language (EFL) textbooks, I will present some recent examples of previous studies that have examined how vocabulary teaching is approached in EFL textbooks. While it would have been more useful to present previous studies on how derivation or other word formation skills are taught in EFL textbooks, such specific research is so rare that none of it was available for my examination. Thus, there certainly exists a niche for the topic of the present study.

3.1. How does one know a word?

How does one know what is *a tractor*? I do not mean the machine, but the word; how does one know what the word *tractor* is? What kind of knowledge must one possess to know what it is? To understand word formation and its implications to language learning and teaching, these types of questions must logically be answered.

Knowing a word is, perhaps surprisingly, a rather complex issue. Nation (1990: 31-33) lists no less than fifteen different questions, further refined in his later work to eighteen (Nation 2001: 27), that one must be able to answer correctly about a particular word to demonstrate both full **receptive** and full **productive** knowledge. **Receptive** knowledge refers to knowledge that helps in recognizing a word, such as knowledge about what the word looks and sounds like, how and when it occurs and behaves grammatically in relation to other words, what it means, and what other words does it bring to mind. One relevant aspect of receptive knowledge is the ability to recognize possibly familiar word parts within the word, which is one of the ways in which derivational knowledge can benefit vocabulary learning. Receptive knowledge also includes rather abstract features of the word, as Nation explains: “It also includes being able to see which shade of meaning is most suitable for the context that it occurs in” (Nation 1990: 32).

Productive knowledge extends to the actual use of the word, such as knowledge about pronunciation, writing and spelling of the word, what other words can or should be used in relation to or instead of the word, and when as well as how often to use the word.

Knowledge about a particular word can be also classified along three dimensions as identified by Nation (2001: 33-58): **form**, **meaning** and **use**. Each dimension further contains three aspects. Knowing the **form** of a word involves knowing the spoken form and written form, as well as having sufficient derivational knowledge to recognize the word parts that make up the word. Knowing the **meaning** of a word involves

understanding the relationship between the form and the meaning of the word, knowledge of what that meaning includes and what it can refer to, as well as what other words that one can be associated with or replaced by. Knowing the **use** of a particular word involves understanding how it functions grammatically, what collocations it has, as well as knowledge of when and how the word could or should be used. It is important to remember that each of these aspects has both a receptive and productive component; an interesting example in view of the present study is knowledge of word parts, which for receptive use involves simply recognizing and understanding the meanings of the parts that make up the word, while for productive use one must understand which parts are necessary for expressing the meaning. (Nation 2001: 33-58.)

Thus, the prospect of fully learning a word seems daunting, and further so because it is well-established common knowledge that most words in a language are not, in fact, limited to having just one meaning. Furthermore, those meanings are not fixed, but may vary according to factors such as context, register, time of use, and others. It may not be feasible to expect the kind of word knowledge as explained above of learners, since of even native speakers' vocabulary only a small portion consists of words they know in all their aspects, as Nation (1990:32) reminds us.

It must be noted that concerning L2 learners specifically, there are certainly problems with the distinction of receptive and productive vocabulary. Melka (1997) argues that while this type of dichotomy is convenient in a pedagogical sense and is certainly backed by empirical evidence, it is difficult to apply. This is firstly because it is difficult to measure the actual gap between what is considered receptive and productive vocabulary, and secondly because neither can be defined very accurately. He makes a convincing case for abandoning the use of terms *receptive* and *productive* as strictly separate ideas, instead presenting the idea that they should be replaced by a continuum or a scale of knowledge.

Other authors have voiced similar views, and proposed an alternative model. In their commentary of Melka's article, editors Schmitt and McCarthy (1997: 108) raise an important concern: that perhaps it might be time to abandon the somewhat simplistic notion that one simply knows or does not know a word. Considering how much knowledge is even possible to possess about a particular word, it seems difficult to judge exactly when one has reached the point where the word can be considered to be

“known”. A similar view is discussed by Ringbom (1991), who sees lexical knowledge as a system containing a series of continua pertaining to a learner’s level of knowledge regarding, for example, the semantics or syntax or collocations of a particular word. In Ringbom’s view (*ibid.*), these continua are independent of one another; for example, a learner might know multiple meanings of a word yet not their syntactic constraints. Thus, knowledge of a particular word progresses not only in stages, but in a set of stages across different aspects of lexical knowledge. This view seems plausible, but for the purposes of planning and executing vocabulary teaching effectively, it is still important to somehow measure the broader context: the amount of vocabulary knowledge possessed by the learners.

There are two distinct ways that learners’ vocabulary knowledge is traditionally measured; the **breadth** and **depth** of vocabulary, of which the former describes the size of the known vocabulary while the latter describes the quality of that knowledge. While breadth of knowledge is readily understandable and quantifiable, even if that quantification is not easy to achieve reliably, the depth of knowledge has been proven to be so difficult to define accurately that Read (2004) argues that as a term it is inadequate. He describes how various researchers have called three rather different things *depth of knowledge*: precision of meaning, comprehensive word knowledge, and network knowledge (Read 2004: 211-212). The first of these means the precision with which the word’s meaning is known, the second means the actual knowledge about the word (orthography, phonology, etc.) besides its meaning, while the third means the ability to place the word in a network in the mental lexicon, i.e. to understand how it relates to and is distinguished from related words (*ibid.*). Based on this, Read argues that the field of L2 vocabulary studies should develop more well-defined terms to replace depth of knowledge, especially since he also describes various research (see Read 2004: 221-223) that suggests that there may be little or no actual difference between the development of what is called breadth and depth of knowledge. Schmitt (2010: 216) has also touched upon a similar notion, in reminding the reader that every “breadth” test has an element of a “depth” test in it anyway, in that there must always be a certain quality of knowledge that acts as the threshold whereupon a lexical item can be considered “known”.

There are numerous ways to test and measure both breadth and depth of vocabulary (see Schmitt 2010, chapter 5), the most widely used of which seems to be Nation’s (1990)

Vocabulary Levels Test (VLT). Nation describes it as designed for measuring receptive vocabulary (1990: 93), and its purpose as being to give an indication of where the learners need help with their vocabulary learning (1990: 79). For the original test, see (Nation 1990: 261-272), though keep in mind that others have improved and expanded upon the original (e.g. Schmitt, Schmitt and Clapham in Nation 2001: 416-424).

Even though there are established ways to discuss word knowledge, and equally well-established ways of measuring its extent, there is very little in the way of a formal model that would explain how this knowledge is acquired by the learners. How does vocabulary acquisition happen? This is an especially difficult question to answer in the L2 context, where no model or explanation has become widely accepted. Meara (1997) discusses two models he calls somewhat forgotten ones, Crothers and Suppes' model of 1967 (in Meara 1997: 111-112) and Riegel's (1968) set of theoretical models; Meara describes these as having had much potential and implications for future research, yet having been only rarely cited.

The idea of a sort of continuum, along which words move, seems something that would pertain to such a model – and can be encountered in the literature. However, like Melka (1997), Meara (1997) notes a number of shortcomings with the idea of words moving along a continuum ranging from receptive to productive. This kind of a model describes what is supposed to happen to words in the learners' minds without explaining why or how, there is no indication as to what is the "space" in which this continuum exists. Furthermore, words have been clearly demonstrated to do things that simply cannot be characterized by describing it as a movement along a continuum (Meara 1997: 117-118). He also discusses how linguists working with in the field of L2 learning have been reticent to develop any formal models of how vocabulary acquisition happens – which he reasonably argues against. In his words: "...we have all been looking for the wrong thing, with the wrong tools, and in the wrong place" (Meara 1997: 121).

With a hypothetical model he has developed, Meara (1997) demonstrates how modelling can help lead one in unexpected, more fruitful directions regarding research. Key features of this model are *acquisition events* (Meara 1997: 113-117), which mark the learning of an unknown word in a text. The model would then concentrate on predicting how often these would occur as proficiency in the L2 increases, thus the uptake rate of new words would be a function of vocabulary size; the more words the

learner knows, the less likely that new words are encountered to be learned. Furthermore, he postulates that there would be a certain threshold level, after which the rate of vocabulary uptake would increase. (ibid.) Such a threshold seems plausible, since it has become accepted that there exist a level of vocabulary size, 2,000 to 3,000 known words, at which guessing from context as a vocabulary learning strategy becomes available to learners (Nation 1990). This threshold would be followed by a period of rapid uptake, which would then level out at some abstract level of mastery. However, this simple model would be further refined by examining the complex interaction between the size of the learners' vocabulary, the rate of encountering new words in particular texts, and the difficult-to-predict likelihood of uptake. (Meara 1997.)

Meara's hypothetical model is presented here because it is, despite lacking testing, quite advanced; it takes into account a number of shortcomings in previous attempts at understanding how L2 vocabulary acquisition works. As such, it seems plausible and would certainly warrant research to further refine and test it, and is an acceptable example of what such a model might look like. Presenting such an example seems useful for understanding vocabulary learning, but presenting further models would likely serve only to complicate the issue. Thus Meara's model shall stand, as far as the present study is concerned, since the teaching, not learning, of vocabulary is a much more important issue in view of the aims of the study.

3.2 What makes it easy or difficult to learn words?

The effort required to learn a word increases if the learners' first language is not related to the second (Nation 2001: 24). Nation (1990: 33-50) calls the amount of this effort the **learning burden** of a particular word, and elaborates that it depends on three things "...1) the learners' previous experience of English and their mother tongue, (2) the way in which the word is learned or taught, and (3) the intrinsic difficulty of the word." (Nation 1990:33) To elaborate this, words are easier to learn if they fit into systematic patterns already there in the learners' minds, are taught effectively, and are simply easy to learn. The systematic patterns include things such as patterns of predictability of various features of the word based on knowledge of English, as well as similarities in spoken form, written form and grammatical function to words present in the learners' first language. The intrinsic difficulty of a word depends on the part of speech the word

belongs in (e.g. nouns being easier to guess based on context), as well as the simplicity of the features of the word. (Nation 1990: 33-49).

Research has shown that for L2 learners, a set of features marking a rise in difficulty may be morphological complexity, the degree to which the word is derived and/or inflected. There is evidence that L2 learners are, perhaps unsurprisingly, slower than L1 learners of English in processing morphologically complex words, i.e. words that are either derived or inflected. In their two studies, presented in Clahsen et al. (2013), Clahsen et al. conducted psycholinguistic experiments on L2 learners in order to investigate the timing of processing morphologically complex words. The first of these was a comparison between the results of a previous study (Silva & Clahsen 2008, in Clahsen et al. 2013: 10), consisting of data from 21 native speakers of English, and data from a new group of 20 ESL learners with Arabic as their L1. This data was gathered using the masked priming technique (with two different timings for the prime) to investigate the processes involved in recognizing regularly inflected *-ed* forms. The second, to the present study much more relevant, study examined 21 Dutch advanced-level L2 English learners' sensitivity to morphological categorical and structural constraints, or whether they would accept words such as **fleasless* (ungrammatical) and *liceless* as acceptable English words. The participants completed both a task where they judged whether the forms were acceptable or not, as well as measurement of the participants' eye movements during reading. Together, their results indicated that L2 learners were not only slower in processing morphologically complex words, but also "...that the L2 comprehension system employs real-time grammatical analysis (in this case, morphological information) less than the L1 system" (Clahsen et al. 2013: 26), i.e. they made less use of morphological information than did members of the native control group. Even though these results are difficult to generalize owing to the low number of participants, the efficacy with which they were achieved lends them some credibility to point out how morphologically complex words may be one particular challenge to L2 learners.

Laufer (1997) expands further on other features of words that can make them difficult to learn, naming such features as pronounceability, orthography, and length, most of which are intuitively understandable as raising the learning burden. Of morphological features, she discusses how inflectional and derivational complexity can also do the same (see also Clahsen et al. 2013), of which the latter is naturally interesting in view of the

present study. Laufer (1997: 146) stresses the importance of learner knowledge of word parts, while noting that lack of regularity of some morphemes is another source of difficulty, e.g. it is not always possible to use *ante* as a direct replacement for *pre* to create words such as **antequel (prequel)*. To further complicate matters, there are words that to L2 learners may seem like they are composed of parts but in reality are not, e.g. *shortcomings* are not short visits, but weaknesses. Laufer (ibid.) terms these words **deceptively transparent**; they are falsely perceived by learners as being **morphologically transparent**, i.e. that their structure would be composed of word parts. To use *shortcomings* as an example again, learners might perceive it as being composed of *short + coming + plural s*, and assume the word's meaning to be *short visits*. In this case, derivational knowledge would ease the learning burden of this word, because the learners would be able to perceive its correct composition of not being a compound at all.

Since morphologically complex and deceptively transparent words seem particularly challenging for L2 learners, it would make sense to provide those learners with a reasonable degree of derivational knowledge to help mitigate the issues. One of the ways in which this could be done would be to include instruction and exercises on it consistently throughout series of textbooks, because as has been established in Chapter 1, textbooks as a tool tend to be particularly influential in Finnish foreign language teaching.

3.3 Vocabulary learning strategies

Knowledge of word formation plays a part in certain strategies learners may employ to discover the meanings of new words. In order to provide a somewhat coherent picture of overall vocabulary learning strategies and the place of word formation in it, the taxonomy of Schmitt (1997) is useful; he presents 58 different strategies organized according to, and drawn from, a variety of sources (see 1997: 203-208) and organized into five categories. These are further grouped according to whether they are employed to discover the meanings of new words (discovery strategies) or to consolidate the word in the lexicon once it has been discovered (consolidation strategies).

Discovery strategies include **determination** and **social strategies**; of these, the former involves individual strategies such as guessing from context, using a dictionary, or

analysis of parts of speech or word parts, a strategy of particular interest in view of the present study. The latter involves asking someone else (teacher or classmate) for assistance or being involved in group work. **Consolidation strategies** are much more varied. Some of the **social strategies** are also consolidation strategies (work with classmates/teacher, or interact with a native speaker), but the major category here is **memory strategies**, or mnemonics. These are very varied, but generally involve relating the new word with something the learner already knows, whether it be through pictures, imagery, grouping the word with related or even unrelated words or ones with similar orthography or phonology, or learning all the words of an idiom together. Somewhat similar are the **cognitive strategies**, but these are more focused on mechanical working with words, and thus include such means of study as word lists, repetition, taking notes in class, or using flash cards. Finally, there are **metacognitive strategies** which students use to evaluate, control and improve their own learning. Strategies in this category include using media in the target language, or either skipping or continuing to study new words over time, among others. (Schmitt 1997: 206-217)

Schmitt (1997: 217-221) also reports on a survey of how 600 Japanese EFL students, at three different levels of education from junior high to adult learners, actually employed the strategies discussed above, with some interesting results. For example, of metacognitive strategies learners reported only ever using the ones mentioned above (skipping new words or continuing to study new words over time). Furthermore, he presents a compilation of six strategies that were both most used and most helpful, as reported by the students: "... 'bilingual dictionary', 'written repetition', 'verbal repetition', 'say a new word aloud', 'study a word's spelling', and 'take notes in class'. We can conclude that these are all strategies which learners already use and believe beneficial." (Schmitt 1997: 221). He also presents some strategies as being perceived helpful by a majority but actually used by a minority of the students – underlining the importance of introducing and instructing, but also of encouraging the use of those learning strategies. It is notable that the strategy of particular interest in view of the present study, analysis of word parts, was not perceived by learners as particularly helpful, yet not as unhelpful either. Likewise, it was neither in the group of most or least used strategies, which means that though some reported using it and finding it helpful, it was not perceived as particularly helpful in contrast with more popular strategies. One such example was dictionary use, which Schmitt reports as being a particularly strong preference. (Schmitt 1997: 217-221)

Nation (1990: 159-176) describes in further detail how three learning strategies work: **guessing from context**, a mnemonic technique called the **keyword method**, and **the use of word parts**. These are strategies best used for learning low-frequency words and recommended instead of teaching the actual words, since the words themselves only ever occur infrequently. **Guessing from context** becomes available to learners once they know about 2,000 or 3,000 words, and involves the learners literally guessing the meaning of the unfamiliar word by closely examining the word itself, the clause or sentence it is contained in and the relation of that clause or sentence to other clauses or sentences and paragraphs. **The keyword method** is used to consolidate the new word by creating an association between its form and meaning, with the learner possibly using their native language for assistance. The learner thinks of a word with that sounds similar to the new word (or part of it), which will act as the keyword, and creates a mental image somehow combining the meaning of the new word with the meaning of the keyword. The image is more effective the more striking it is. In Nation's example, an Indonesian learner could use the keyword method to remember the meaning of *parrot* by imagining a parrot lying in a ditch (*parit* in Indonesian). **The use of word parts** is useful for either learning the meanings of new words or for checking whether guessing from context has led to successfully guessing the correct meaning for a word. (Nation 1990: 159-176)

To make use of word parts in learning vocabulary, the learners need **relational knowledge** and **distributional knowledge**. **Relational** knowledge comprises the ability to recognize that a complex word is made up of certain parts, as well as an understanding that those parts can occur in other words, e.g. *ungrateful* → *unhappy*. It is also necessary for the learner to understand what the parts mean, as well as seeing how their meanings combine to form new meanings. These help learners with the receptive use of words, while **distributional** knowledge is needed for productive use; it consists of awareness of which forms of stems can accept certain types of affixes, such as *-ly* being able to be added to adjectives only. Productive use also requires learners to understand the different formal changes that may occur when stems and affixes are combined; these can affect both the pronunciation and the written form of the new complex word. (Nation 2001: 273-274, based on Tyler and Nagy 1989)

Thus using word parts is useful as learning strategy in two ways: both for checking results from other methods and as an asset in and of itself. However, there is ample evidence that especially L2 learners need instruction in making those parts useful – derivation has to be explicitly taught to them. This evidence, as well as a helpful tool for teaching derivation, is discussed further below.

3.4 Word formation skills and vocabulary learning

Is it worthwhile to teach learners derivation? Nation (2001: 264-267) provides ample evidence that it is. Derivational affixes are a rather wide occurrence in the English language, as evidenced by various items of research (see Nation 2001: 264). For example, Nagy and Anderson (1984) estimated that around one eighth (12,8%) of words in printed school English of that time had a derivational affix. This estimate was based on a detailed analysis of a 7,260 word sample from the *American Heritage Word Frequency Book* (Carroll, Davies and Richman 1971, in Nagy and Anderson 1984:305) which constituted, for their purposes, a representative sample of printed school English of that time; thus, Nagy and Anderson argued that their estimates could be generalized by extrapolation to all printed school English of the time (1984: 306).

There is also evidence that direct instruction in knowledge of affixes can help learners understand new lexical items they encounter. White, Power and White (1989) studied the meanings of words that possess four prefixes, namely *un-*, *re-*, *dis-* and *in-* (meaning *not*), these being the most common prefixes in *American Heritage Word Frequency Book* (Carroll, Davies and Richman 1971 in White, Power and White 1989: 287), which White et al. considered a representative sample of printed school English of the time. The aforementioned prefixes accounted for over half of all different prefixed words in their sample. White et al. estimated, among other things, that as much as approximately 60% of words with these prefixes could be understood by the learners, if they knew the most common meaning of the base word. When including contextual help and knowledge of less common meanings of the prefixes, the percent of understanding rose to 80%. Thus, White et al. concluded that direct morphological instruction would benefit students from 4th grade on, at least when this instruction would be based on knowledge of frequently occurring affixes and focused on preparing the students to use that knowledge.

White, Power and White's study was partly based on Wysocki and Jenkins' (1987: 69) postulation that children would be able to use what they called "morphological generalization", which White, Power and White (1989: 285) call **morphological analysis**, a process of analyzing and thereafter reapplying constituent morphemes of words to learn new ones in order to facilitate the growth of vocabulary. In their study, Wysocki and Jenkins (1987) investigated how fourth-, sixth-, and eighth-grade students could and whether they would use morphological and contextual information to discover meanings of unknown words. They used three vocabulary measurement tasks: an initial screening test, one test before training students randomly in one of two groups of word pairs being tested, as well as a posttest after training. Their total participants amounting to 134, their results may be to some degree generalized. Though evidence supportive of the notion that the ability to morphologically analyze vocabulary items was a factor in growing the vocabulary of elementary school L1 learners was found, Wysocki and Jenkins' findings relating to the extent of this factor were inconclusive; they could not fully ascertain the extent to which transfer of physically similar words affected the responses. Thus, they concluded that they could say with confidence that the phenomenon was there, but could not fully ascertain the degree to which it was. (Wysocki and Jenkins 1987).

The main limitations with the studies presented above are that some of them are quite aged, and that they are based on American school textbooks. Furthermore, since most research concerning word formation skills seems to be centered on measuring the learner's abilities rather than how to teach or make use of those in teaching, there is very little research into how morphological awareness affects L2 learning. I will discuss some of this research further.

In her MA thesis, Nyysönen (2008) investigated the level of morphological knowledge of Finnish 6th grade pupils, and whether it would be useful to directly instruct them in this respect. She tested her 56 participants with a three-part test modified from the CEFLING project (CEFLING) on their ability to both form and recognize affixes in use, as well as chose two well-performing students for a think-aloud task. Through quantitative statistics of the test scores as well as a qualitative analysis of the think-aloud task, she learned that the pupils' understanding of affixation was weak, which she considered unsurprising since she also reported that the level of instruction in this regard seemed non-existent. There was, however, a correlation between the skill level of

the pupils and their level of knowledge on word formation. Thus, she concluded that direct instruction of word formation would be beneficial to learners in that it would facilitate their vocabulary learning. (Nyysönen 2008).

Not dissimilar results were more recently obtained by Mäntylä and Huhta (2013), who investigated the word part knowledge of over 300 Finnish L2 learners, aged 12-16. The participants completed a three-part test, consisting of a productive gap-fill task, a non-word derivational task, and a list-based gap-fill task. In addition, since their data collection occurred as part of the same CEFLING project as did that of Nyysönen's (2008), their participants' level of writing skills were estimated based on four different writing tasks assessed against the Common European Framework of Reference (CEFR) levels. Their results showed that the learners had considerable derivational skills, as evidenced by their performance on the first part of the test, which involved direct production. However, as evidenced by their considerably lower performance on the two other tasks, especially the non-word derivational one, there was variation as to how well they could apply that knowledge in practice. Based on the participants' assessed level of writing, Mäntylä and Huhta (2013) concluded that it takes as late as higher-end B1 or even B2 level of proficiency, as indicated by the CEFR, for L2 learners to be able to fully understand and make use of derivation as a system.

Both studies presented above seem to suggest that instruction in the knowledge of word parts would be beneficial to learners. When provided consistently especially towards intermediate and higher levels of proficiency, it would increase the learners' morphological awareness, that is, knowledge of morphemes and how to manipulate them properly in order to produce words (Carlisle 2003). Yet morphological awareness seems to influence more than just the acquisition of vocabulary.

Firstly, morphological awareness seems to influence the learners' reading skills, and especially their reading comprehension skill. Kieffer and Lesaux (2008) examined this relationship in a group of 87 Spanish-speaking American English learners by measuring their morphological awareness with a decomposition task, as well as their reading comprehension with the WLPB-R Passage Comprehension cloze test (Woodcock 1991, in Kieffer and Lesaux 2008: 791), over a period of two years. They discovered that by fifth grade, measure of the learners' morphological awareness was a reliable predictor of their reading comprehension. Zhang and Koda (2014) came to similar conclusions in

their more recent study of 245 grade 6 Chinese learners of English; morphological awareness seems to enhance reading comprehension. They arrived at this realization after having the participants complete multiple tasks measuring their reading comprehension skill, vocabulary knowledge and morphological awareness in both English and Chinese, and examining the results of these tasks for correlations and by using hierarchical regression analysis. Their results also indicated that the effect may not, however, transfer from one language to another, even when using hierarchical regression analysis to see if Chinese compound awareness would affect English reading comprehension.

Further accentuating the close relationship between morphological awareness and reading skill is the research of Siegel (2008). She tested, using a variety of tasks, 1,238 grade 6 Canadian schoolchildren, some of whom were recognized as dyslexic, on their morphological awareness, reading skill, phonological processing, reading comprehension, and spelling. Based on the learners' performance in these tests, as well as comparisons on how different skills influenced one another, she concluded that morphological awareness has a close relationship with reading and spelling ability in general, and noted that especially dyslexic readers' reading skill deficits might be due to a lacking morphological awareness. It has to be noted, however, that of her 1,238 participants only 309 were ESL learners.

Secondly, morphological awareness may also affect the learners' word reading ability, both in the L1 and generally. Ramirez et al. (2010) investigated how morphological awareness influenced word reading in their sample of 97 Spanish-speaking English learners of grades 4 and 7, by testing the participants on their nonverbal reasoning, working memory, phonological and morphological awareness, vocabulary, and word reading abilities. They found evidence suggesting that morphological awareness in Spanish had some influence on the participants' word reading in English. In another study, Ramirez et al. (2011) investigated how derivational and compound awareness in the L2 were affected by the characteristics of the first language and reported, among other findings not very relevant in view of the present study, that morphological awareness again had a significant influence on the participants' word reading, even after controlling for external factors such as maternal education. This newer study had a larger sample of 89 Spanish-speaking ESL, 77 Chinese-speaking ESL, and 78 monolingual English speakers from grades 4 and 7, who were tested using a variety of

measures and questionnaires on various language skills, again notably derivational and compound awareness as well as word reading. Achieving consistent results yet with relatively small samples, these studies call for more research. In view of the present study however, they serve to again emphasize the role morphological awareness has in relation to learners' language skills.

Schmitt and Zimmerman (2002) examined the ability of a group of 106 L2 English learners, under- and postgraduate students, to produce derivatives of words across four major word classes (noun, verb, adjective, and adverb). They tested the participants, as well as a control group of 36 native English-speaking students, on how they produced derivative forms for a group of frequent words drawn from the Academic Word List (Coxhead 2000, in Schmitt and Zimmerman 2002: 152). They found that it was most common for students to possess partial knowledge of various derivatives, and that there was a relation to the word class; nouns and verbs were easier to derive from the base forms, while adjectives and adverbs were more difficult. Thus, they concluded that a teacher cannot assume that a learner simply absorbs a whole word family at once, instead recommending more direct instruction into derivative forms and the use of affixes. (Schmitt and Zimmerman 2002)

Since many items of research discussed here seem to highlight the importance of encouraging the development of the learners' morphological knowledge, it is useful to discuss a tool, developed by Nation (2001), to allow teachers to more effectively teach affixes and their uses to learners. Based on numerous studies of the frequency of affixes in the English language, some of which are discussed earlier in this chapter, Nation (2001) developed a sequenced list of affixes that are the ones most useful and accessible to learners. This list is given in full in Table 1 below.

Table 1: List of derivational affixes for learners of English (Nation 2001: 268)

Stage 1	-able, -er, -ish, -less, -ly, -ness, -th, -y, non-, un- (all with restricted uses)
Stage 2	-al, -ation, -ess, -ful, -ism, -ist, -ity, -ize, -ment, -ous, in- (all with restricted uses)
Stage 3	-age (leakage), -al (arrival), -ally (idiotically), -an (American), -ance (clearance), -ant (consultant), -ary (revolutionary), -atory (confirmatory), -dom (kingdom, officialdom), -eer (black marketeer), -en (wooden), -en (widen), -ence (emergence), -ent (absorbent), -ery (bakery, trickery), -ese (Japanese, officialese), -esque (picturesque), -ette (usherette, roomette), -hood (childhood), -i (Israeli), -ian (phonetician, Johnsonian), -ite (Paisleyite; also chemical meaning), -let (coverlet), -ling (duckling), -ly (leisurely), -most (topmost), -ory (contradictory), -ship (studentship), -ward (homeward), -ways (crossways), -wise (endwise, discussion-wise), anti- (anti-inflation), ante- (anteroom), arch- (archbishop), bi- (biplane), circum- (circumnavigate), counter- (counter-attack), en- (encage, enslave), ex- (ex-president), fore- (forename), hyper- (hyperactive), inter- (inter-African, interweave), mid- (mid-week), mis- (misfit), neo- (neo-colonialism), post- (post-date), pro- (pro-British), semi- (semi-automatic), sub- (subclassify, subterranean), un- (untie, unburden)
Stage 4	-able, -ee, -ic, -ify, -ion, -ist, -ition, -ive, -th, -y, pre-, re-
Stage 5	-ar (circular), -ate (compassionate, captivate, electorate), -et (packet, casket), -some (troublesome), -ure (departure, exposure), ab-, ad-, com-, de-, dis-, ex- ("out"), in- ("in"), ob-, per-, pro- ("in front of"), trans-

Nation describes this list as indicating an order in which it would be, based on research (see Nation 2001: 267-268), best to teach and learn these affixes in order to maximize the reward for the learning effort. It does not show an order in which learners acquire affixes, nor suggest that there is an invariable order in which these affixes are learned – it is simply intended as a tool for teachers. (Nation 2001: 267-268).

What it does do, however, is list the affixes that are the most useful and accessible ones for learners of English, and acts as a rough five-stage progression guide in which affixes might be effectively taught and learned. The words in parentheses exemplify the meaning of the affix intended, e.g. in the early stages learners should be introduced to – *able* as having a very limited use in being able to be something such as *countable*, saving other meanings of –*able* (such as *suitable* or *fashionable*) for more advanced stages of learning. Nation (2001: 268) also reminds that since the items in the later stages comprise both high- and low-frequency items, it falls to the teachers' expertise to be selective as to what they teach and when.

It is precisely the demand on teachers' expertise that is the main shortcoming of this list as a teaching tool. The teacher has to have both the language competence to understand what is relevant for the learners, as well as the teaching competence to determine when to teach which affixes. However, since teacher education in Finland is popularly

considered to be very comprehensive as well as effective, and the statute on teacher eligibility (A 14.12.1998/986) demands high language proficiency of teachers in the form of a master's degree in the language, it seems that Nation's list might be something Finnish teachers could make use of.

3.5 Previous research on vocabulary instruction in textbooks

As stated in the beginning of this chapter, serious research on instruction of derivation or other word formation methods in EFL textbooks seems practically nonexistent. Thus, in this section I present three previous studies discussing other aspects of vocabulary instruction in EFL textbooks. Konstantakis and Alexiou (2012) investigated the amount of vocabulary introduced in five Greek EFL textbooks aimed for use in the first two years of primary EFL teaching in Greece. In a somewhat similar manner, Alsaif and Milton (2012) examined how much and how frequent vocabulary was used in 22 textbooks in use in Saudi upper secondary schools. Actual exercises and activities in EFL textbooks were analyzed by López-Jiménez (2009), who analyzed vocabulary exercises and activities aimed at instructing one-word lexical items in 12 textbooks intended for EFL teaching. All these studies found various inadequacies in the way vocabulary was instructed, which suggests that it may not be at the forefront of what course book writers and designer consider important.

Konstantakis and Alexiou (2012) discovered issues with the vocabulary presented in five Greek EFL textbooks aimed for use in the first two years of primary EFL teaching in Greece. Their aims were to calculate how many words were presented, examine whether those include low- or high-frequency words, and if there is overlap between the different books, and measure whether the books would prepare learners for relevant-level language tests (Konstantakis & Alexiou 2012: 37). They used the RANGE research software (Heatley, Nation and Coxhead 2002, cited in Konstantakis & Alexiou 2012: 38) to examine the amount of new word types presented in the textbooks and compare these with one another, as well as a frequency measuring list. They found that the textbooks were very varied in the vocabulary they presented, to the extent that their coverage of the most frequent words suffered. The textbooks were incapable of preparing the learners for the relevant-level language tests and likewise could not achieve one of the aims set for them: presenting the learners enough vocabulary to allow them to reach the A2 level of performance in accordance with the

Common European Framework of Reference for Languages (Council of Europe 2001). (Konstantakis & Alexiou 2012: 39-42.)

Alsaif and Milton (2012) examined the vocabulary used in 22 textbooks used in Saudi Arabian upper secondary schools in an attempt to explain Saudi Arabian learners' low scores on various vocabulary size tests (Al-Hazemi 1993, Al-Bogami 1995, and Alsaif 2011, cited in Alsaif and Milton 2012: 21). Like Konstantakis and Alexiou (2012), Alsaif and Milton (2012: 24) used the RANGE research software to examine which English words were presented in the textbooks. They also analyzed response data from Saudi school students on a word-list test of how many words were learned from the books and discovered that, in their very limited sample, the main factors affecting word learnability were length, concreteness and the amount of repetition a word received (Alsaif & Milton 2012: 28-32). In light of the present study however, of main interest are their findings on the textbooks themselves. They found that the books only covered just over 80% of the 2000 most frequent words, while of the 5000 most frequent words only approximately half were presented (Alsaif & Milton 2012: 26). The textbooks also completely ignored portions of a list of target words to be presented, provided by the local Ministry of Education, and presented new word families very unevenly from one school year to the next (Alsaif & Milton 2012: 26-28). Thus, the vocabulary coverage provided by the textbooks was insufficient for the learners to develop adequate comprehension of the English language.

López-Jiménez (2009) analyzed vocabulary exercises and activities aimed at instructing one-word lexical items in 12 textbooks intended for EFL teaching across three proficiency levels from beginner to advanced. She also examined responses to 116 questionnaires completed by Spanish EFL teachers regarding the textbooks, but again of main importance are her findings regarding the actual activities in the textbooks. She analyzed the activities following a typology of how much control the learners had over the answers (from mechanical exercise to communicative or ambiguous activity)(López-Jiménez 2009: 68). She found that the presentation of one-word lexical items lacked variety since most of them were presented through text with a possible visual aid. There was also an imbalance in the practice of these lexical items, since they were practised mostly through closed exercises and open activities, while communicative activities were only used extremely rarely. Very few books had any vocabulary lists with L1 translations. (López-Jiménez 2009: 69-72.)

The common theme in the findings of these studies is that textbooks appear to be very thoroughly engineered products, to the extent that they may end up treating vocabulary instruction somewhat inefficiently. López-Jiménez (2009: 74) commented that two possible causes for this, of which both seem plausible, could be the influence of communicative approaches, which stress the importance of natural contexts at the expense of explicit instruction, or economic reasons, since publishing textbooks with no L1 translations is cheaper since they can be distributed more widely. Clearly, designers, writers and publishers should remember to maintain a balance between economical and pedagogical standpoints in textbook design.

In the present and previous chapters, I discussed the various processes of word formation in the English language and defined the process of derivation, as well as examined some key concepts of second language vocabulary teaching and learning. Since there is next to no research on how word formation, specifically, is instructed in second language textbooks, I also discussed a few recent studies that otherwise examined vocabulary instruction. In the next chapter, I shall move on to describe the present study.

4. The present study

The present study is a qualitative one that aims to describe how derivation as a word formation process is exercised or otherwise touched upon in Finnish upper secondary school textbooks for mandatory courses. Thus, the research question the present study attempts to answer is:

Q1: How is the derivation of new word forms instructed and exercised upon in Finnish upper secondary school textbooks?

This research question was chosen because, as established in Chapter 3, there is a variety of ways in which instruction in word formation skills can benefit learners. For instance, it can aid in the recognition of new word forms (White, Power and White 1989), and by increasing the learners' morphological awareness, it can positively influence the learners' reading skills, especially reading comprehension (Kieffer and Lesaux 2008). Textbooks were chosen as the analysis target because they are frequently

made use of in Finnish schools (Luukka et al. 2008), while the upper secondary school level was chosen because it seems reasonable to assume that if not done earlier, derivation would be instructed at textbooks of this level, and if done earlier, then it would likewise be expanded and/or rehearsed. Derivation was chosen as the word formation process to examine because, as explored in Chapter 2, it is the most commonly used and productive way to form new words. It seems thus plausible to assume that if word formation is instructed, it most likely involves derivation as defined in the present study (affixation, conversion, compounding, or use of stress placement).

The present study seeks to answer the research question by subjecting the textbooks of two series, intended for use in the six mandatory English courses in upper secondary school, *English United* and *ProFiles*, to a process of qualitative content analysis. In this chapter, I will explain **how** the present study was done, **what** was studied, and **why**; first I will further describe chosen form of data, i.e. the series of textbooks, after which I will elaborate on the chosen research method of qualitative content analysis, and conclude by discussing the motivation of the aims and methods of the present study.

4.1 The Data: *English United* and *ProFiles*

The data in the present study consists of textbooks intended for use in upper secondary school courses 1-6 from two series, *English United* and *ProFiles*, that is, a total of 12 textbooks. The total number of relevant exercises found in these books was 87. These two series were chosen first and foremost because they were originally published by major publishers, Tammi and WSOY, respectively; *English United* Courses 1-6 textbooks were published by Tammi in 2004-2006, while *ProFiles* Courses 1-6 were published by WSOY in 2008-2010. It must be noted that the copyright of both series is currently held by SanomaPro. Since both series were published by major companies in a country the size of Finland, it seems reasonable to assume that they are, or possibly in the case of *English United*, have been, in widespread use. It must be stressed that this is an assumption only, if a reasonable one, since, possibly due to market competition reasons, publishers are reluctant to provide any actual numbers on the usage of their products.

While both series of textbooks are accompanied by supplementary materials such as teacher's material, CDs for listening to exercises and texts, and others, the present study

focuses solely on the textbooks themselves. There are two reasons for this limitation. The first is that, considering the size of the data as it is, 2,095 pages in total, without including vocabulary lists and test sections located at the end of each book, it would have been unfeasible, in the scope of the present study, to try and include other materials in the analysis. The second reason is tied to the first, in that by focusing only on the textbooks, which can be considered the most essential pieces of the teaching material as they are what the learners receive and can work with on their own in addition to school work, a considerably broad answer can be obtained to the research question. All of the courses that are specified as mandatory in the national curriculum (Lukion opetusuunnitelman perusteet 2003) are represented, though not differentiated, in the data of the present study. This way, the research question can be answered in a manner that details what kind of instruction learners can be expected to receive on derivation, even if they choose not to study additional courses.

While the term *textbook* is consistently used throughout the present study for the sake of consistency and clarity, both series of textbooks are actually combined text- and workbooks. What this means is that they are rather similar in organization; both consist of *Units*, which are arrangements of texts based on certain themes such as different types of English, or politics, and may have one or more texts in them. Most texts are accompanied (generally immediately followed) by a set of exercises based on the text, and possibly containing additional tasks using the vocabulary of that text. The texts that do not have specific exercises are often explicitly marked as additional in some way or another. Books in both series also contain a specialized section towards the end that explores language directly through themes such as grammar, certain special types of vocabulary, or meta-level skills like composition writing. Finally, books in both series are concluded by vocabulary lists arranged according to the texts, as well as alphabetically. One difference in organization does exist, however: the approach to reinforcing learning. *English United* has a *Test Match* section, containing exercises on skills and vocabulary taught in that book at the end of each book, while *ProFiles* has, again towards the end of each book, a section called *BackTrack*, that contains further exercises organized according to which text or other theme they are intended to reinforce.

4.2 The Method: qualitative content analysis

The method of analysis used in the present study is qualitative content analysis, the orientation of which contains elements of both deductive and inductive research. The raw numbers of different types of exercises are provided as well. The distinction between deductive and inductive qualitative research lies in whether the researcher starts with a theory or idea and attempts to research it, or starts with the data itself and attempts to discover a theory or a well-informed understanding from it (Ellis and Barkhuizen 2005: 257). Tuomi and Sarajärvi (2007) also discuss this distinction from the point of view of what the method is based on: data-based (inductive) or theory-based (deductive). However, as Ellis and Barkhuizen (2005: 258) note, it is a theoretical distinction and a study cannot be fully one or the other. Thus, the orientation of the present study contains elements of both deductive and inductive research; as in the former, there is a particular feature (instruction and exercises on derivation) for which the researcher is looking for in the data, while the aim of the study is to arrive at a thorough understanding of how this feature occurs in the data, as in the latter.

Qualitative content analysis is a method for systematically analysing textual data, and can be described as consisting of three steps. The first step is what Dörnyei (2007: 246, 250-253) and Ellis & Barkhuizen (2005: 253-276) call **coding**, which means that the researcher looks for features relevant for the research in the data, and assigns these features appropriately descriptive codes as well as lists these codes. The second step, **second-level coding**, involves the researcher assigning further descriptive codes to the items in order to capture their more abstract features, and examining the totality of the codes for patterns and ways to categorize them (Dörnyei 2007: 252-253). What follows is sometimes called **clustering**, i.e. grouping the codes into appropriate classes (Tuomi and Sarajärvi 2009: 111). The third step has the researcher examine the classes, their relations, and the codes themselves in an attempt to interpret the data and thus draw conclusions based on the research question (Dörnyei 2007: 257).

Even though qualitative analysis is most often described as starting with the step of **coding**, Dörnyei (2007: 250-251) also notes that some analysis has usually already taken place when initial coding begins. The researcher has to be familiar with the data in order to approach it with a deliberate purpose, and thus must read the transcribed data thoroughly and make notes on it. This necessarily results in some understanding of the

data forming within the mind of the researcher, and serves to guide the process of coding. (ibid.)

It must be noted that these steps are the ones relevant in view of linguistic research, since there are other views on how content analysis should proceed (see for instance Tuomi and Sarajärvi 2009) as well as additional steps not relevant to the present study. For example, Dörnyei (2007: 246-249) discusses transcribing the data as part of the analysis process, while the present study uses data that is already in textual form.

The challenging aspect with this method involves answering the question of credibility; are the results obtained an accurate representation of what is studied? One main way to address this issue is to establish an internal coherence in the study, that is, to describe all aspects of the aims of the study, the data, the method, the researcher's personal interests, as well as directly assessing and discussing the reliability of the study (Tuomi and Sarajärvi 2009: 140-141). Internal coherence in the present study is established in different sections by describing these aspects, including assessing the credibility of the study in the Discussion chapter. Describing the analysis process can be considered especially important, because the mostly inductive approach of the present study has the researcher start from what the data actually contains, instead of a predefined set of criteria. Therefore, there is always the danger that the researcher's worldview influences their interpretation of the data through, for example, personality, previous knowledge, or previous experience with similar data. To prevent this, choices that are made during the analysis must be kept systematic, and as objective as possible, as well as justifiable. Description of these choices, and their justifications, is essential, so that the reader can understand how the findings ended up being the way they are. Thus, in the next section, a detailed description of the analysis process is given.

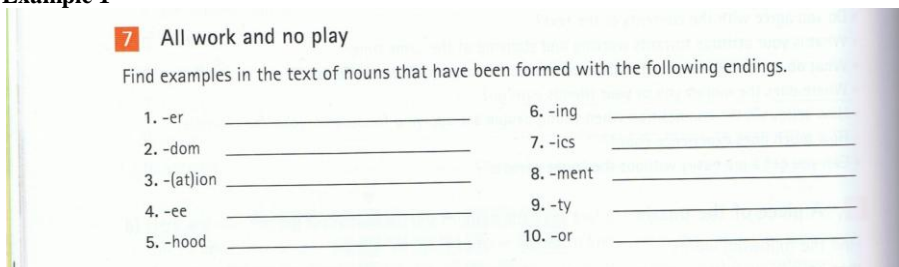
4.3 Description of the analysis process

In keeping with the methodology described above, the analysis process in the present study involved four steps: pre-coding deliberation and familiarization with the data, initial coding, second-level coding, and interpretation of the results. Each step will be described in detail in order to provide a justification for the credibility of the results as well as a means for the reader to understand how the results were obtained. However,

the whole process began with defining an analysis unit, which is why it should also be described first.

In the present study, the analysis unit is an **exercise (that deals with or contains derivation)** which, since the textbooks contain both instructions as well as exercises, is an overarching unit in the sense that it contains two types of items that may seem different at first. Firstly, it contains both actual exercises, which are realized as visually and textually distinct elements in which the student is clearly instructed to do something such as find examples of nouns formed with certain endings (Example 1). Secondly, it also contains what could be called, owing to their most common visual shape and textual content, *instruction boxes*: visually distinctly organised elements of text that give instructions and/or examples of derivation (Examples 2 and 3). This analysis unit was chosen because the research question also calls for examining instruction of derivation and, as became clear during the coding process described below, exercises and instruction boxes can be classified according to same means.

Example 1

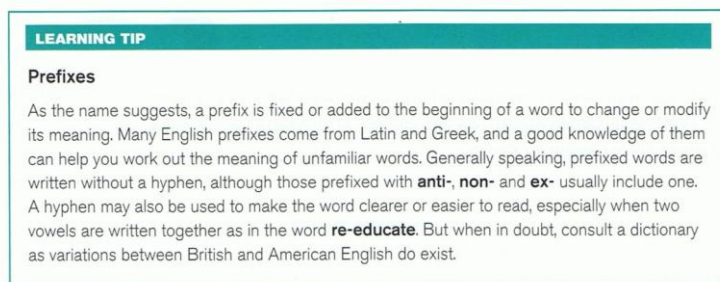


7 All work and no play
Find examples in the text of nouns that have been formed with the following endings.

1. -er _____	6. -ing _____
2. -dom _____	7. -ics _____
3. -(at)ion _____	8. -ment _____
4. -ee _____	9. -ty _____
5. -hood _____	10. -or _____

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2005: 60)

Example 2



LEARNING TIP

Prefixes

As the name suggests, a prefix is fixed or added to the beginning of a word to change or modify its meaning. Many English prefixes come from Latin and Greek, and a good knowledge of them can help you work out the meaning of unfamiliar words. Generally speaking, prefixed words are written without a hyphen, although those prefixed with **anti-**, **non-** and **ex-** usually include one. A hyphen may also be used to make the word clearer or easier to read, especially when two vowels are written together as in the word **re-educate**. But when in doubt, consult a dictionary as variations between British and American English do exist.

(Ikonen, Mäkelä, Nikkanen, Salo and Sutela 2010: 20)

Example 3

Näin muodostat uusia sanoja

Sananmuodostus – Word formation

KUINKA SAAT SADASTA SANASTA VIISISATAA UUTTA SANAA?

Lukiessasi tekstejä törmäät varmasti joka kerta sanoihin, joita et ole ennen nähnyt. Mutta ei hätää. Jos hallitsee sananmuodostuksen alkeet, voi hyvinkin saada selville sanan merkityksen. Ja sama toimii toisinkin päin: kun tietää perussanan, saa muodostettua mm. sen vastakohtaan, verbistä adjektiivin ja substantiivin, adjektiivista adverbin jne. Katso seuraavaa esimerkkiä:

disempowerment

Sana on sinulle todennäköisesti tuntematon, mutta keskeltä sanaa löytyy tuttu sana power (valta, voima)

- Sanan päätte **-ment** kertoo, että sana on substantiivi. (Seuraavan sivun listassa on muita substantiivien päätteitä.)
- Sanan alussa on kaksi erilaista etuliitettä eli prefiksiä: **dis-** ja **em-**
 - Dis- on negatiivinen alkuliite, joka usein muuttaa sanan sen vastakohtaksi. Esim.
 - honest > dishonest
 - appear > disappear
 - agree > disagree
 - advantage > disadvantage
 - Em-alkuliite voi esiintyä myös muodossa **en-**, kuten sanassa *endanger* ja se tarkoittaa esimerkiksi sitä, että kohde altistetaan asialle (to *endanger* < *vaarantaa*, *saattaa vaaraan*, *tehdä uhanalaiseksi*).

Nyt tiedätkin sanan kaikki osat: **dis em power ment**.

- **to empower** = valtuuttaa, antaa valtaa, saattaa valtaan/voimaan
- **dis = ei, epä-** (vastakohta)

Sanalle **disempowerment** ei sanakirjastakaan löydy suomenkielistä vastinetta, mutta nyt osaat päätellä, että sana tarkoittaa vallan tai voiman vähentämistä, "epävaltaannuttamista", sitä, että joltakin otetaan pois toimintavaltaa tai resursseja toimia. Kätevää, eikö totta!

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2005: 136)

The first step of the research process involved a thorough reading of each of the 12 textbooks, in order to get a basic understanding of how they were arranged and to facilitate the coding process beforehand by attuning the researcher into recognising relevant analysis units in the data. Thorough reading as used in this chapter means that each page in each book (2,095 pages in total, without vocabulary and test sections) and each discovered unit of analysis had its visual organization subjected to scrutiny to determine how the content is organised, and its textual elements were all read through. In the series, these are organized mostly in a similar manner, yet there are differences. For instance, in both series exercises tend to follow (in page organisation) the texts to which they are related to, but their indication and organisation is different. In *English United*, most exercises are simply numbered, while *ProFiles* uses a system where exercises accompanying a text are labelled according to the area of language knowledge they are intended to exercise. This was one way in which pre-reading influenced the coding process; the choice was made to exclude the labels of the exercises as means of classification since it turned out that they are rarely used in *English United*.

The second step of the process involved an equally thorough reading of each textbook, during which the precise locations of all analysis units discovered were noted on a separate list by giving each a name containing information of the textbook, page number, and the label of the exercise. The latter were only used during this step and the next one to facilitate their faster retrieval. Then, each of these units were examined in turn and given further descriptive markers according to factors that rose to prominence while examining them, i.e. they were generated inductively from the data itself. In total, during this step each unit was assigned six different markers according to six different factors, which are here presented in no particular order as of this stage.

The first was whether they were explicit or implicit in the sense that whether they were labelled as or otherwise contained information that clearly shows that they are meant to be exercises on derivation, since there were some that were labelled as, for example, grammar exercises but in reality had students practice derivation. **The second marker** described each unit according to how much of it was dedicated to derivation, since some exercises contained multiple subsections exercising different skills, in the form of a simple description of whether the whole exercise or part of it was about derivation. **The third marker** described whether the exercise was accompanied by instructions on how to do what was demanded in the exercise, while **the fourth marker** described whether it was similarly accompanied by illustrative examples of the relevant word formation process at work. The *accompanied by*–aspect here was understood broadly, since there were exercises that, for example, did not in themselves or even on the same page have any clear instruction or examples, yet were so situated that it would be clear to anyone encountering the exercise that there are instructions and some related examples given some pages earlier, such as some exercises in *KnowHow*–section of *ProFiles*. The instructions on some of them did not mention derivation or even word formation, but the different colouring and the label *KnowHow* in the sidebar were understood to be sufficient clues that would lead a student to the instructions earlier in the same section. By contrast, there were exercises in both books that used derivation of new word forms or finding examples of derived forms as a tool for rehearsing vocabulary, and these were often accompanied by no instructions at all, yet might or might not have examples. **The fifth marker** denoted which aspect of word formation as defined in the present study was dealt with in the exercise: affixation, conversion, compounding, or use of stress placement. **The sixth marker** described the exercise in terms of what the learner had to actually do to complete the exercise: practice, i.e. directly make use of the

process dealt with such as derive adjectives from given verbs, translate certain pieces of text or figure out the meaning of an affix separately, find examples of words produced by the relevant process in a text, or nothing at all, in which case that particular unit was one of the *instructional boxes* described above. It must be noted that, since some exercises contain multiple activities, this marker necessarily describes the primary, or the more major, activity the learners were expected to complete. Nevertheless, it seemed necessary to sometimes describe an exercise as consisting primarily of two activities, in cases where the two were closely intertwined, for example. For a full list of all possible markers for each factor, see Appendix III.

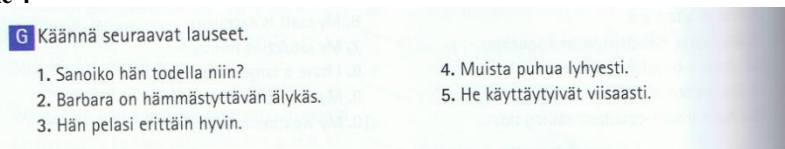
As early as this step, there emerged some exercises that definitely needed a class of their own in order to maintain the reliability of the results: the *disparate* ones. These were exercises that received the *unidentified* marker in one or more of the aspects described above. They were exercises that clearly had something to do with derivation, yet in such a manner that it was difficult to be able to reliably assign them all appropriate markers. For example, some exercises had the learners practice the use of the *-ing* suffix in verb forms, without distinguishing the difference between the two derivative *-ing* suffixes (changes a verb into a noun, e.g. *jump* → *jumping*, or a noun into an adjective e.g. *a yellowing leaf*) and the inflectional one (denotes the present continuous aspect, e.g. *She is singing*). In an exercise that had the learners practice the use of all three it was unfeasible, considering the analysis unit, to reliably and justifiably draw a line as to how many items in the exercise would have to be about the derivational ones in order for it to be included in the analysis, for example. Furthermore, these exercises were relatively few in number (18 out of 87 exercises), which meant that changing or refining the analysis unit to suit them was equally unfeasible.

Thus, these exercises were all grouped together and, in the later step, formed a subclass of their own under their respective book series called the *disparate* class. This was done first and foremost to preserve the reliability of the results; since these exercises clearly fulfilled the definition of the analysis unit, they needed to be included in the analysis, but because there were various problems with describing them accurately, they had to be clearly marked as such to preserve the reliability of the results. For the same reasons, codes in this class are examined with particular thoroughness in the next chapter, where results are described. It must be stressed that the importance of the exercises in this class should not be under- or overestimated in any way; they seem to be cases where a

number of factors that are further explored in Chapter 5 resulted in them appearing different from the rest, at least from the perspective of the present study.

The other 20 different markers assigned were then used to generate a descriptive code for each exercise by simply adding them up together, with an additional marker denoting the series the exercise was in. For example, the code EU_TRAFF_Exp_Whole_I_NE denotes an exercise (Example 4) from the *English United* series (EU) that had students translate sentences in order to practice affixation (TR and AFF), was explicitly described as such and contained no other parts (Exp and Whole), and had instructions of how derivation in the context of the exercise worked yet had no examples provided (I and NE). Full lists of these codes are given in Appendices I (*English United*) and II (*ProFiles*), while Appendix III lists the full taxonomy of all possible markers used to generate the codes.

Example 4



(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2004a: 162)

Step three of the analysis process involved organizing the generated codes into classes and subclasses, which began by grouping together similar codes and then deciding the most productive way to organize the classes and subclasses. Some experimentation and memo-writing was obviously necessary here, but it quickly emerged that the most elaborate results seemed to be obtainable when organizing the codes in this order, according to their markers: the series of books → the working method → the process of derivation involved → whether the whole exercise or part of it deals with derivation → whether or not the exercise contains instructions and/or exercises. The first one, classifying according to the series from which the exercise came, was an insight from an earlier phase, when it became clear that one series contained many more exercises than the other, which meant that the series could not be considered equal parts of the data. The second one, the working method in the exercise, was chosen because it is a very practical consideration and clearly answers the research question in the sense of *how*. The third was chosen because it would provide a clear view of which processes of derivation receive attention in the books. The fourth and fifth were simply further classifications pertaining to the research question, but it must be noted that in multiple cases either or both of them were left out simply because the resultant subclasses would

only have had two or three members, making them relatively redundant with respect to the fourth step of the analysis.

The fourth step, interpretation, involved examination of the structure produced by the previous steps, wherein each exercise was now in coded and classified form, the direct results of which are presented in the next chapter. This examination necessarily involved some counting of raw numbers as well as some comparing between the series since, as explained above, it became clear early on that the series would turn out to have major differences, while having some obvious similarities.

5. Derivation in *English United* and *ProFiles*

The present study investigates how derivation, as outlined in Chapter 2.5, is instructed and exercises upon in *English United* and *ProFiles* series of textbooks for upper secondary school courses 1-6. The results of the analysis process, which is described in Chapter 4.3, are presented in the following order: first, a general overview of the broader findings of the analysis is given in Chapter 5.1, along with some comparison between the series. Chapters 5.2 and 5.3 will focus on describing how derivation is instructed in *English United* and *ProFiles*, respectively. It must be noted that due to a large number of sub-classes emerging in the analysis, a full listing of the codes, classes and subclasses in each series are given in Appendices I and II, respectively. Chapter 5.4 summarises the results and further compares the series with one another.

5.1 Overview

The first and earliest-discovered primary finding of the present study is that *English United* has considerably more exercises on derivation than *ProFiles* has. The second primary finding is that the derivation process that receives the most attention is affixation, very nearly to the exclusion of the other processes. The third primary finding is that direct, hands-on practice is the favoured method of having the students exercise their derivational skill. These findings are demonstrated in Tables 2 and 3 below.

Table 2. Comparison on the number of exercises and derivation processes handled in *English United* and *ProFiles*

Series	Exercises on affixation	Exercises on conversion	Exercises on compounding	Exercises on stress placement	Exercises on multiple processes	Disparate class	Total number of exercises
English United	40	2	4	2	1	7	56
ProFiles	19	0	1	0	0	11	31
Total number of exercises in both series	59	2	5	2	1	18	87 (69 fully classified)

Table 2 also shows how affixation excludes other processes when both series are considered one set of data, in that of 69 fully classified exercises 59 deal with affixation. The treatment of different processes is thus one area in which these two series of textbooks can be considered very much alike. Other processes are rarely explained or practiced on, yet do receive some attention in *English United*. Table 2 also lists the *disparate* class of exercises, which is explained in the previous chapter. All such exercises are explored in either of the next two sections depending on which series they were encountered in.

Table 3. Working methods of exercises in *English United* and *ProFiles*

Series	Find examples	Instruction box	Practice	Translate	Multiple methods	Disparate class	Total
English United	6	7	25	4	7	7	56
ProFiles	2	2	16	0	0	11	31
Total	8	9	41	5	7	18	87

Table 3 shows the numbers of exercises according to which working method was primarily employed in an exercise; whether the learners were required to find examples of the particular derivation process at work in, for example, a chapter text, or to examine an instruction, directly practice deriving new word forms, translate sentences involving derived forms, or a combination of the previous, respectively. Direct practice is clearly favoured, since nearly half of all of the exercises discovered employed it as the primary working method. It is closely followed in prominence by giving detailed instructions and having the learners find examples of derived forms.

An additional finding that is evident in Table 3 is that *English United* has a broader range of different working methods employed than *ProFiles*, while methods used in *ProFiles* appear more focused; there are no multiple-method exercises in *ProFiles*,

whereas *English United* has a total of seven that employ various methods in succession or conjunction. These include instructions with practice embedded in the instruction itself (one instance, see example 5), instructions with an embedded translation exercise (two instances), direct practice in conjunction with translating (two instances), as well as two instances of an exercise where learners are asked to find examples as well as practice.

5.2 Derivation in the *English United* series

In this section, some general findings about the *English United* series will be presented first, after which the actual classes into which the exercises were eventually grouped are examined from the point of view of what they actually required the learners to do. The section concludes by discussing the peculiar *disparate* class of exercises, and examining the reasons that led to those particular exercises being classified as such.

English United has considerable variety in the way it has the student exercise derivation. This is evident in the number of main classes, nine in total, which were formed according to the working methods employed in the exercises (Appendix I). Besides a number of instruction boxes, as visually and textually distinct elements containing only instructions and examples are referred to in the present study, there is a variety of seven other working methods present. Four of these occur only in *English United*: finding examples of derived forms in conjunction with direct practice, direct practice involving additional translation of derived forms, and instruction boxes that incorporate direct practice or translation in a combination of exercise and instruction. Table 4 lists numbers of exercises using a particular working method in the *English United*.

Table 4. Working methods in the *English United*

Practice	25
Instruction box	7
Translate	4
Find examples	6
Instruction box + Translate	2
Instruction box + Practice	1
Find examples + Practice	2
Practice + Translate	2
Total	49

Here *English United* simply repeats one of the main findings of the present study: direct practice is favored when learners are expected to learn derivation. As can be seen from examining the class into which the 25 exercises that have learners do direct practice (Table 5) were grouped, 14 have either instructions, examples, or both, which shows that it is reasonable to assume that learners will be familiarized with how derivation works, even though there are altogether 11 such exercises that have neither instructions nor examples. Bearing this in mind, it must also be noted that all such exercises deal with affixation and not the other three, more marginal, processes – these had, in cases of direct practice, always at least either instructions or examples (Table 5).

Table 5: Exercises involving direct practice in the *English United* series (excerpt from Appendix I).

Class	The process of derivation involved	The whole exercise vs. part of an exercise	Are there examples or instructions?	Codes in the class	
Practice	Affixation	Part of exercise	NEITHER examples NOR instructions	EU_PRAAFF_Exp_Part_NI_NE	
				EU_PRAAFF_Exp_Part_NI_NE	
			Examples OR instructions	EU_PRAAFF_Imp_Part_NI_E	
		Whole exercise	Examples AND instructions	EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Exp_Whole_I_E	
				EU_PRAAFF_Imp_Whole_I_E	
				Examples OR instructions	EU_PRAAFF_Exp_Whole_I_NE
					EU_PRAAFF_Exp_Whole_I_NE
				NEITHER examples NOR instructions	EU_PRAAFF_Exp_Whole_NI_NE
					EU_PRAAFF_Exp_Whole_NI_NE
					EU_PRAAFF_Exp_Whole_NI_NE
					EU_PRAAFF_Exp_Whole_NI_NE
					EU_PRAAFF_Exp_Whole_NI_NE
					EU_PRAAFF_Exp_Whole_NI_NE
					EU_PRAAFF_Exp_Whole_NI_NE
		EU_PRAAFF_Exp_Whole_NI_NE			
		Compounding			EU_PRACOM_Exp_Part_NI_E
					EU_PRACOM_Exp_Whole_I_NE
Stress placement			EU_PRASP_Exp_Whole_I_E		
			EU_PRASP_Imp_Part_NI_NE		

However, *English United* seems to have integrated derivation as a viable way of learning vocabulary, since the majority of the 11 exercises without instructions or examples are included among the regular ones learners are expected to complete when working on chapter texts. These are very minimally instructed, as can be seen in Example 5 below, where the exercise in question is located in the upper right corner of the page.

Example 5

4 Queue here!
What kind of queuing habits do we Finns have at the
a) bus stop
b) post office
c) school canteen?
Have you ever had to stand in a queue abroad?
If you have, discuss how this was different from either the British or the Finnish way.

5 Complete the following table with the other forms of the words.

NOUN	VERB	ADJECTIVE
warmth		
benefit	(from)	
	(for)	blameworthy
consideration	prepare (for)	
forgiveness (for)		
	(to...for)	hesitant
		apologetic

6 Fill in the crosswords.

1. turvota, paisua
2. vaara, uhka
3. taidokas, mukikas
4. samanlainen
5. tyrmistynyt
6. vihje
7. lämpö
8. huomio
9. rakkaus, hellyys
10. syyttää, syytös
11. hankinta, huomaavaisuus
12. epäoivä
13. vastaanottovirkailija
14. nerokas

15. hellauttaa
16. poikkeuksetta, aina
17. kassanhoitaja
18. synnynnäinen
19. tavata, tapaaminen
20. valmistautumaton
21. hävinnollistaa
22. anteeksi pyytävä
23. pohjimmainen, olennainen
24. synkkiä
25. anteeksianto
26. pyyntö, vaatimus

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(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2004: 105)

The frequent occurrence of exercises such as the one labeled with number 5 in Example 6 suggests that learners using *English United* are, to some extent, expected to be already familiar with derivation as a process, especially affixation. This is further supported by the fact that of the nine exercises in the first book of the series, as many as five belong to this specific sub-class (Appendix I). Contrary to what might be expected, exercises placed earlier in the books are not as well-instructed as later ones in *English United*, which requires that either learners be already familiar with derivation, or derivation be instructed elsewhere, for example in the teacher materials, or derivation be instructed specifically by the teacher.

Yet *English United*, as a series, has a great deal of instruction as well. To be specific, there were seven full instruction boxes, of which at least one dealt with each process of

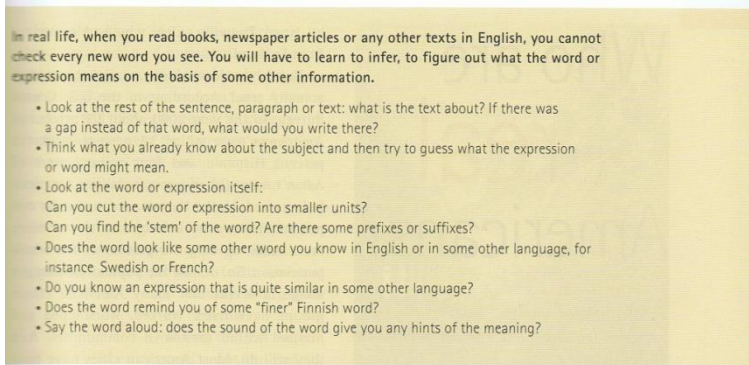
derivation save for stress placement (Appendix I), which was in itself a minority of minorities; there were only two exercises on it in the whole data, both of them in *English United*, and in the form of direct practice (Appendix I). Table 6 describes the relevant classes in detail.

Table 6: Exercises involving direct instruction in the *English United* series (excerpt from Appendix I)

Class	The process of derivation involved	The whole exercise vs. part of an exercise	Codes in the class
Instruction box	Affixation	Part of exercise	EU_IBAFF_Exp_Part
		Whole exercise	EU_IBAFF_Exp_Whole
			EU_IBAFF_Exp_Whole
			EU_IBAFF_Exp_Whole
			EU_IBAFF_Exp_Whole
	Compounding		EU_IBCOM_Exp_Whole
	Conversion		EU_IBCON_Exp_Whole
Instruction box + Practice		Affixation	EU_IBPRAAFF_Exp_Whole_I_E
Instruction box + Translate		Affixation	EU_IBTRAFF_Exp_Whole_I_E
			EU_IBTRAFF_Exp_Whole_I_E

As can be seen in Table 6, most instruction boxes are *whole*, i.e. they are in their entirety about some form of derivation, with one exception (Example 6) where an instruction on another aspect of language was noted for incorporating very minor instructions on an aspect of affixation. This example also illustrates the delicateness of the analysis process; even an instruction box with just one of seven bullets reminding learners to try making use of their morphological knowledge was included as a relevant analysis unit.

Example 6



(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2005: 107)

Table 6 also lists other exercises where instruction was deemed the major working method, thus including two other classes. Examples 7 and 8 illustrate these classes, respectively. While highly similar in form, these exercises are different in that while the

former is more focused on instruction and actively encouraging learners to complete other exercises to help practice affixation, the latter has the learners deduce the meaning of the affix in question as well as write it down in Finnish. This is why the exercise has received the marker of translation in this analysis. Despite this difference, they also share the use of the word *tutkia* (investigate / study), which appears to be a deliberate choice on the authors' part, seemingly being intended as an encouragement.

Example 7

Tutki taulukkoa. Huomaa, että joissakin sanoissa etuliite on sulautunut kiinteäksi osaksi sanaa; toisin sanoen se ei siis ole enää irrotettavissa tai vaihdettavissa toiseen. Sanan alkuosa auttaa sinua kuitenkin päättämään sanan merkityksen. Lisää taulukon lopussa olevien etuliitteiden puuttuvat merkitykset. Apua saat harjoituksista s. 143-144.

ETULIITE	MERKITYS	ESIMERKKEJÄ	ETULIITE SULAUTUNUT OSAKSI SANAA	
sub-	<i>alla oleva, ali-</i>	subway <i>maanalainen</i> (Am.), alikulutunneli (Br.) subtenant <i>alivuokralainen</i> subzero <i>temperature pakkanen</i>		
semi-	<i>puoli-</i>	semiprofessional <i>puoliammattilainen</i> semi-detached house <i>paritalo</i>		
uni-	<i>yksi-, yhtenäinen</i>	unicorn <i>yksisarvinen</i> in unison <i>yhteen ääneen, samanaikaisesti</i>	unite	<i>yhdistää</i>
mono-	<i>yksi-</i>	monogamy <i>yksiaviolisuus</i> monolingual <i>yksikielinen</i>		
bi-	<i>kaksi-</i>	bisexual <i>biseksuaalinen</i> bimonthly magazine <i>kahdesti kuukaudessa tai joka toinen kuukausi ilmestyvä lehti</i>		
multi-	<i>moni-</i>	multiracial <i>monirotuinen</i> multimillionaire <i>monimiljonääri</i> multifunction machine <i>monitoimikone</i>		

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2006:140)

Example 8

Tutki esimerkkilauseita ja päätele etuliitteen merkitys. Huomaa, että joissakin sanoissa etuliite on sulautunut kiinteäksi osaksi sanaa; toisin sanoen se ei enää ole irrotettavissa tai vaihdettavissa toiseen. Sanan alkuosa auttaa sinua kuitenkin päättämään sanan merkityksen.

ETULIITE	MERKITYS	ETULIITE	ETULIITE OSANA SANAA
Ante-		Antenatal complications are complications that the foetus may have prior to birth.	There are several historical antecedents to ethnic conflicts, in other words similar conflicts have taken place before.
Arch-		The archbishop of Canterbury expressed his concern for increasing violence, calling it the archenemy of the Church.	
Bene-		An anonymous benefactor donated a large sum to the orphanage.	He was the only beneficiary of his mother's will.
Cent(ji)-		There are 100 centilitres in one litre.	They held a concert, marking the centenary of the composer's birth a century ago.

(Daffue-Karsten, Luukkonen, Moilanen, Pollari and Venemies 2006:120)

Translation is another working method that seems unique to *English United*, though only rarely and occasionally as an additional task. In total, there were eight (8) such

exercises, of which four (4) had translation as the major working method, while the rest used it as an additional element with instruction (2) or practice (2). Table 7 illustrates the relevant classes and subclasses, save for the one (instruction + translate) already appearing in Table 5 above.

Table 7: Exercises involving translation of items in the *English United* series (excerpt from Appendix I)

Class	The process of derivation involved	Are there examples or instructions?	Codes in the class
Practice + Translate	Affixation		EU_PRATRAFF_Exp_Whole_I_NE
			EU_PRATRAFF_Exp_Whole_I_NE
Translate	Affixation	Examples AND instructions	EU_TRAFF_Exp_Whole_I_E
			EU_TRAFF_Exp_Whole_I_E
		Examples OR instructions	EU_TRAFF_Exp_Whole_I_NE
	Multi-process		EU_TRM_Exp_Whole_I_NE

Exercises that involve translation always have instructions, as can be seen in Tables 5 and 6, and more often than not they also have examples of the particular process at work. Example 9, below, illustrates one such exercise. Translation was also the working method in the only clearly classifiable example of an exercise that deals with multiple processes of derivation (Example 10). This exercise contained elements involving affixation, compounding and conversion, as well as shortenings, which were not relevant to the present study.

Example 9**B** From a bystander to a polyglot – how to outwit everyone!

Miten suomentaisit sanat? Mikä on etuliitteen merkitys? Lisää merkitykset taulukkoon sivulle 141.

1. If something is **extraterrestrial**, it is not from this world or part of this world. **Extracurricular** activities are activities that are not part of the school curriculum or syllabus. **Extraordinary** stands out from the ordinary. How would you translate an **extra large shirt** and **extramarital affairs**?
extra- yl
2. A **polyglot** is person who speaks several languages. **Polygamy** means having several husbands/wives at the same time. **Polytheism** means believing in several gods. What would **polysyllabic** be in Finnish?
poly- moni
3. **Anti-Semitism** means hatred of Jewish people. **Anti-virus** software protects your computer from viruses. An **anti-nuclear movement** is against the use of nuclear power. What would an **anti-hero** and **anti-clockwise** mean?
anti- vastakk.
4. **Pro-euthanasia** means being in favour of euthanasia. What does it mean?
pro- puolesta
5. A **byproduct** means an additional, unplanned product or result. A **bypass** is either a road that goes around a town or other busy area rather than through it or a heart-operation where blood is directed through new veins outside the heart. What does it mean if you are a **bystander** or you study the **highways and byways** of English literature?
by- shu, viera
6. If you **outweigh** someone, you are heavier than he is. To **outlive** means to live longer. How would you translate to **outnumber** and to **outsmart**?
out- yl
7. If you write under a **pseudonym**, you don't use your real name. What could **pseudo-intellectuals** be then?
pseudo- sub, väkän
8. What does it mean if you are **overworked** but **underpaid**?
over- yl under- al

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2006:14)

Example 10**A** Figure it out!

Päättele lihavoitujen sanojen merkitys lauseyhteyden ja sananmuodostusjohtimien perusteella.

1. Regular exercise is **beneficial** to health.
2. We have run out of milk. I have to pop in at the **minimart** round the corner.
3. He really enjoys the feeling of power and having control over other people's lives – that's not normal, it's **megalomania**!
4. **Pantheism** is the religious idea that God is present in all natural things.
5. John looks so happy now that he has a real bike and not a **tricycle** any longer.
6. Mr Peters was elected **vice-chairman** of the club.
7. As a reporter I don't want **sensationalism**, but seek the truth and nothing but the truth.
8. Sarah, **Duchess of York**, is not such a public figure any more.
9. Their home is very small, a **flatlet**.
10. **Languagewise** he should do alright: his English is excellent.
11. History repeats itself: the large-scale killings in Rwanda are **comparable** to the **genocide** of the Jews.
12. The county of Surrey, aka the **Stockbroker Belt**, has become a popular residential area for well-off London commuters.
13. There is such a huge difference between the prices and quality of the same product in different shops that a modern consumer should always **comparison-shop** before buying anything.
14. They live in such a **happy-go-lucky** way that I'm not surprised that they have no money left.
15. They don't agree on anything and have nothing in common – what an **incompatible** couple!

(Daffue-Karsten, Luukkonen, Moilanen, Pollari and Venemies 2006:126)

Having the learners find examples of results of a particular process was another minor working method which was to a greatly varying degree present in both series. In *English United*, there were six (6) such exercises as well as two additional ones that had learners both find examples of as well as practice a particular process. In a pedagogical sense, these exercises seem to be targeted at learners who are less-experienced with focusing

on derived forms, since completing them only requires the ability to recognize those forms. However, not all such exercises provided instructions or examples, which would mean that, for learners with lesser understanding of how derivation works, the teacher would almost certainly be required to provide at least a little reminder. Table 8 illustrates the relevant classes, while Examples 11 and 12 illustrate the difference between an exercise that had learners only find examples (11) and an exercise that has both finding examples and direct practice (12).

Table 8. Exercises involving finding of examples as a working method in the *English United* (excerpt from Appendix I)

Class	The process of derivation involved	Are there examples or instructions?	Codes in the class
Find examples	Affixation	Examples OR instructions	EU_FEAFF_Exp_Whole_I_NE EU_FEAFF_Exp_Whole_NI_E
		NEITHER examples NOR instructions	EU_FEAFF_Exp_Whole_NI_NE EU_FEAFF_Exp_Whole_NI_NE
	Compounding		EU_FECOM_Exp_Whole_NI_E
	Conversion		EU_FECON_Exp_Whole_I_NE
	Find examples + Practice	Affixation	

Example 11

To verb a noun

Some of the words in the text are both nouns and verbs. Below are the definitions of the nouns. Figure out what they are. Now find the equivalent verb in the text. Sometimes the noun and the verb do not mean the same thing. Make sure that you understand the meaning of the verbs.

NOUNS	VERBS
a) a boat which regularly moves from one place to another in order to transport people, cars and/or goods	
b) a large open container used for washing	
c) the part of the body that is on the top and contains the brain	
d) a piece of wood	
e) the outside coating of certain fruits and vegetables	

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2006: 73)

Example 12**5 Back to your roots**

Find adjectives in the text that have a common stem with the words below. What endings have been used to form the new words?

1. excite _____
2. apprehend _____
3. rebel _____
4. chirp _____
5. patience _____
6. tolerance _____
7. bewilder _____
8. anxiety _____
9. loner _____
10. silence _____

stem (sanan) vartalo

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2005: 34)

All seven exercises that were incorporated into the *disparate* class of *English United* have a common factor: it was difficult to measure the extent to which the exercise in question dealt with phenomena relevant for the present study and with phenomena irrelevant to the present study. This was because of the way *English United* handles certain aspects of grammar, namely the use of the three different *-ing*-suffixes and the formation of adverbs.

The three different *-ing*-suffixes in the English language are 1) the suffix that changes a verb into an adjective, e.g. *yellow* → *a yellowing flower*, 2) the suffix that changes a verb into a noun, e.g. *run* → *running is a great hobby*, and 3) the suffix that marks a present continuous aspect of the verb, e.g. *I am running (right now)*. In *English United*, there was a section that introduced the learners to all of these in one considerably sizeable section, and discussed these as different ways of using “the *ing*-form of a verb”, e.g. using a verb as an adjective or a noun. Evaluation of this point of view in any way is not the objective of the present study, but it must be described here in order to justify the inclusion of all six exercises following that section in the *disparate* class. Because the subsequent exercises incorporated cases of all three suffixes, they had to be classified as *disparate*, since the method of analysis did not allow measurement of how “much” each exercise handled themes relevant to the present study (the two derivational *-ing*-suffixes) and themes irrelevant of the present study (the present continuous aspect marker). Rather, the present study acknowledges that they are exercises on derivation,

but in a manner radically different from the rest. Example 13 below illustrates one example.

Example 13

D A difficult age

Täydennä dialogi vihjeiden mukaisesti. Pohdi, tarvitsetko verbin perusmuotoa to-sanalla vai ilman tai -ing-muotoa. Lue dialogi sitten parisi kanssa eläytyen ääneen.

A: You ¹⁾ _____ (olisi parasta siivota) your room now. Father will be home any minute. You ²⁾ _____ (et ole muuta tehnyt kuin kuunnellut) to those silly records all morning!

B: Oh, come on! I ³⁾ _____ (olen parhaillaan kovasti tekemässä) my homework. And ⁴⁾ _____ (miksi nähdä vaivaa) anyway! It will be a mess again here next week!

► A: There ⁵⁾ _____ (ei kannata kinata). Hurry up and tidy up your room now! And then you could take Puppy out for a walk. There ⁶⁾ _____ (mikään ei vedä vertoja kävelylle) out in the fresh air.

B: Oh, do I have to? I ⁷⁾ _____ (pysyisin mieluummin) inside. Is it really ⁸⁾ _____ (kannattaako nalkuttaa) about everything all the time?

A: Watch your tongue, Mum! And ⁹⁾ _____ (mieluummin kuin että käyttäydyt) like a small child, you could save your energy for something useful!

B: Alright, alright! Gosh, you ¹⁰⁾ _____ (olit aikaisemmin) so nice when you were a child. But now when you are 17...

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2006: 157)

Another interesting issue that caused some exercises to fall into the *disparate* class in *English United* was that the formation of comparative and superlative forms of adjectives, which are inflections, were instructed together with the formation of adverbs, which are new word forms derived from adjectives. One of the *disparate* exercises (Example 14) was located immediately after an instruction on adverbs, the formation of which does fall under derivational affixation, yet had learners translate sentences that also incorporated adjectives – the formation of which falls under inflectional affixation and is thus not relevant to the present study. An additional problem is that it is difficult to ascertain the actual purpose of the exercise from the learners' point of view, since the only instruction given states that the learner should “pay attention to adjectives and adverbs” while translating.

Example 14

I Käännä seuraavat lauseet suomeksi. Kiinnitä huomiota adjektiiveihin ja adverbisiin.

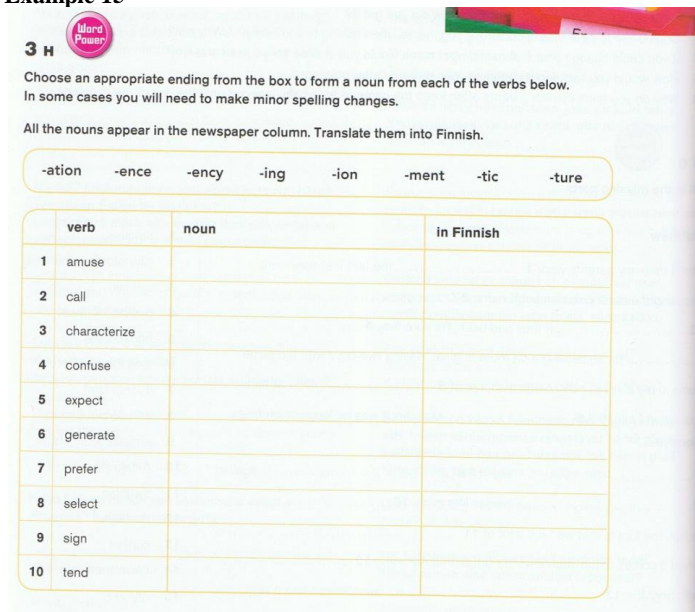
1. This is a much hotter country than I expected. Actually it's very different from what I thought.
2. Can you think about a worse alternative?
3. As usual, the boss delivered the message very briefly.
4. I wonder if they are going to present the scientifically proven results in public.
5. I watched a most enjoyable movie yesterday; it was about one of the farthest corners of the world.
6. When the winter becomes colder and colder in Finland, the summer is at its most beautiful on the other side of the world.
7. The more slowly you act, the more probable it is that the tickets will be sold out by the time you reach the box office.
8. It's an extremely bad idea to make a frightened child stay in the dark.
9. The prices here seem to be as cheap as in my home village. I actually thought everything would be getting more and more expensive the further south one travels.
10. The young would perhaps like to follow the latest fashion.

(Daffue-Karsten, Luukkonen, Moilanen, Pollari, Venemies and Vincent 2004a: 162)

5.3 Derivation in the *ProFiles* series

In this chapter, some general findings about derivation in the *ProFiles* series are discussed first, after which the classes and subclasses into which the exercises in the series were placed are examined. The chapter concludes with an examination of the *disparate* class of exercises, which is, in the case of *ProFiles*, of particular importance, since it was the second-largest one of only four classes. The full class structure of the coded exercises is given in Appendix II.

The relatively small number of classes directly resulted from the way exercises in *ProFiles* were designed; they were very clearly defined in what the students were required to do, and why. Examples 2 (instruction box, on page 41) and 15 (direct practice, below) illustrate this rather well.

Example 15


3 H **Word Power**

Choose an appropriate ending from the box to form a noun from each of the verbs below. In some cases you will need to make minor spelling changes.

All the nouns appear in the newspaper column. Translate them into Finnish.

-ation -ence -ency -ing -ion -ment -tic -ture

	verb	noun	in Finnish
1	amuse		
2	call		
3	characterize		
4	confuse		
5	expect		
6	generate		
7	prefer		
8	select		
9	sign		
10	tend		

(Ikonen, Mäkelä, Nikkanen, Salo and Sutela 2008a: 30)

Table 8 lists the numbers of exercises employing a particular working method, including the otherwise separate *disparate* class: finding examples of derived forms, direct instruction, or direct practice.

Table 8. Working methods in *ProFiles*.

Total	Find examples	Instruction box	Practice	Disparate
31	2	2	16	11

Other findings are also evident in Table 8; the number of exercises that actually handle derivation in *ProFiles* seems somewhat limited, even without any comparison between both series, and again direct practice is the favourable activity for students. Of the 2,095 pages in both series of textbooks, 1,079 were pages from *ProFiles*, on which there were 31 exercises that handled derivation, which does not seem much, especially when considering that of those 31 only two are fully-formed direct instructions. The most common activity for the students is direct practice, while the number of exercises that were for various reasons classified as *disparate* seems particularly considerable. Also of note is that despite there being numerous occasions where translating into Finnish was a minor part of an exercise, as in Example 15, there were no exercises that used translation as the only, or the major, working method.

Example 15 also displays another trait common to a number of exercises in *ProFiles*: the students are given additional help, in that the forms to be derived can also be found in the chapter text. In this sense, many exercises classified as direct practice in *ProFiles* have an additional facet in that they might be completed by simply scanning the relevant text for derived forms. Nevertheless, they were still considered different from exercises that actually employed finding examples as a working method because of the way they were instructed; exercises such Example 15 were instructed in such a manner that the student is clearly expected to complete the exercise by practicing, but using the relevant text for help, while the two exercises that had the students look for examples of derived forms were clearly instructed as such (Example 16). It notable that the one used as Example 16 also contained a minor element of translation which, however, is clearly not the major activity.

Example 16**B 19 Text 11** So Yesterday

Täydennä taulukkoon puuttuvat sanat ja lisää suomennokset.
Löydät kaikki täydennettävät sanat tekstistä.

adjective	verb	noun
special <i>erikoinen</i>		specialty/speciality <i>erikoisuus</i>
wide		width
successful	succeed	
suspicious	suspect	
silent	silence	
	industrialize	industry
productive	produce	



Käännä lauseet.

- 1 Nokian menestys perustuu matkapuhelimiin.
- 2 Aluksi se erikoistui tuotteisiin, jotka tehtiin paperista ja kumista.
- 3 Myöhemmin se laajensi tuotantoaan elektroniikkaan.
- 4 Yhtiö on vaikuttanut paljon Suomen teolliseen kehitykseen.

(Ikonen, Mäkelä, Nikkanen, Salo and Sutela 2009: 153)

The *disparate* class is considerable in extent, even though there is no unifying difference present in the exercises but rather a number of reasons for their classification. Firstly, there were two exercises that bear special mention. One (Example 17, below) had the learners explicitly work with a specific set of derived forms, adverbs, and was located in a section of the textbook explicitly labelled as discussing adverbs, but as an activity it had the learners listen to ten differently emotional ways of saying a certain sentence, labelling them with appropriate adverbs. In this case, the exercise clearly handles derivation, but it is, arguably, difficult to predict the extent to which it might succeed in training the students on forming adverbs vs. remembering the particular adverbs used in the exercise.

Example 17

κ 30  

TOE OF VOICE

Kuulet lauseen "Could you close the door, it's cold in here?" kymmenen kertaa. Mikä adverbi kuvaa parhaiten puhujan tunnetilaa tai asennetta? Numeroi.

..... slowly
 passionately
 quickly
 in a friendly way
 hysterically
 sleepily
 1 shyly
 in a bored way
 drunkenly
 angrily

Vertaa vastauksiasi parisi vastauksiin. Harjoitella sen jälkeen pareittain alla olevien lauseiden sanomista eri tavoilla. Parisi yrittää arvata tunnetilasi tai asenteesi.


"It's time to get up."
 "Do you take milk?"
 "Have you seen my glasses?"

I think you said it angrily.

(Elovaara, Ikonen, Myles, Mäkelä, Nikkanen, Perälä, Salo and Sutela 2008a: 157)

Another one (Example 18, below) bears an especially distinct element, in that while it certainly involves pieces of words that have to be recombined to form derived word forms, only some of the pieces are actual stems or affixes, while others are either syllables or appear to be completely random. Secondly, as with some *disparate* exercises in *English United*, there were exercises (nine in all) in which it was difficult to measure how much of the exercise handled derivation or some other subject matter.

Example 18

11F 

The table contains words that have been chopped in half. Find the two halves that fit together and use the words to complete the sentences below.

food	ful	athlet	ester
ic	cli	experi	ite
lic	tude	region	ad
sea	ence	atti	ach
pub	mate	vice	stom
sem	grate	oppos	al

- The Finnish is pretty similar to Canada's, isn't it?
- There are a lot of differences in the weather in Finland.
- Sean is very; he does all kinds of sports.
- Northern Finland has white nights in the summer and then the phenomenon – *kaamos* – in the winter.
- I think you have an problem; you shouldn't talk to other people like that.
- You don't need a car in this city because of its excellent transit.
- Can I give you a friendly piece of Don't call your host mother *mämmi*!
- The Japanese tourists were very for our help. They kept bowing and thanking us.
- Sauna can be a tough for a first-timer in Finland.
- In Finnish high schools the fall starts in August.
- I don't like such as shrimps and mussels on my pizza.
- I always have butterflies in my before getting onto a plane.

(Elovaara, Ikonen, Myles, Mäkelä, Nikkanen, Perälä, Salo and Sutela 2008: 96)

These other subject matters possibly handled in the exercises were varied. For example, Example 19 below depicts an exercise in which forms of adjectives, their comparative and superlative forms, as well as adverbs are practiced – of which only adverb formation concerns the present study. Example 20 below depicts an exercise that is intended, judging based on the instructions, to help learners rehearse their understanding of stress shift in orthographically long word forms; yet it explicitly mentions word families and is very likely, because of the word forms chosen, to also reinforce understanding of affixation to at least some extent. Example 21 depicts an exercise that has a similar issue to some discovered in *English United*; it is intended to give practice in the use of the suffix *-ing*, of which there actually three, only one of which is derivational (for a full discussion of this see Chapter 5.2). Thus it was not possible, in exercises such as this, to accurately measure how much of the exercise handles derivation.

Example 19

B 29 Adjektiivit ja adverbit

Valitse oikea vaihtoehto.

SCHOOL MATES

Let me introduce you to my very **1 better/best** mates. That blond girl over there is Mandy. She works **2 hard/hardly** at school and always does **3 good/well** in tests. Everyone seems to like her a lot because she treats everyone, even the teachers, **4 friendly/kindly**. The **5 more/most** people she has around her, the **6 happier/happiest** she is. She is also **7 more reliable / the most reliable** friend I've ever had.

That dark-haired guy over there, Alex, came to school **8 late/lately** this morning, as so often **9 late/lately**. He **10 simple/simplely** can't help it. The teachers always look **11 angry/angrily** when he does that, but Alex just smiles at them **12 nice/nicely** and apologizes **13 polite/politely**. **14 Usual/Usually** the teachers let him off the hook, a bit too **15 easy/easily** if you ask me. But he's a **16 terrible/terribly** nice guy.

I like these two a lot because I find them **17 extreme/extremely** easy to be with and the three of us often laugh **18 hysterical/hysterically** at the end of a hard day at school.

(Elovaara, Ikonen, Myles, Mäkelä, Nikkanen, Perälä, Salo and Sutela 2008a: 181)

Example 20



6 F

SHIFTING STRESS

The main stress sometimes shifts to a different syllable within word families, depending on whether the word is a verb, noun or adjective. Listen to each word family and underline the syllable that is stressed each time. The first one has been done for you.

verb	noun	adjective
ad•ver•tise	ad•ver•tise•ment	–
a•na•lyse	a•nal•y•sis	an•a•ly•tical
–	art•ist	ar•tis•tic
cele•brate	cele•brat•y	cele•brat•ed
char•ac•terize	char•ac•teris•tic	char•ac•teris•tic
co•in•cide	co•in•ci•dence	co•in•ci•den•tal
com•pete	com•pe•tition	com•peti•tive
com•pose	com•po•sition	–
–	con•tro•ver•sy	con•tro•ver•sial
ex•hibit	ex•hibi•tion	–
in•flu•ence	in•flu•ence	in•flu•en•tial
in•ter•pret	in•ter•pre•tation	–
pho•to•graph	pho•tog•ra•pher	pho•to•graph•ic

LEARNING TIP

Syllables

English words can be broken up into one or more parts called **syllables**. Knowing which syllable takes the main stress is an important part of learning a word. An English dictionary will show you the correct syllable division for each word and an apostrophe (') will appear before the stressed syllable in the phonetic spelling. Dictionaries divide words in this way, but it is **not** correct to practise do-it-yourself division by breaking words with a hyphen (-) at the end of lines when you write.

(Ikonen, Mäkelä, Nikkanen, Salo and Sutela 2009a: 85)

5.4 Summary and comparison of results

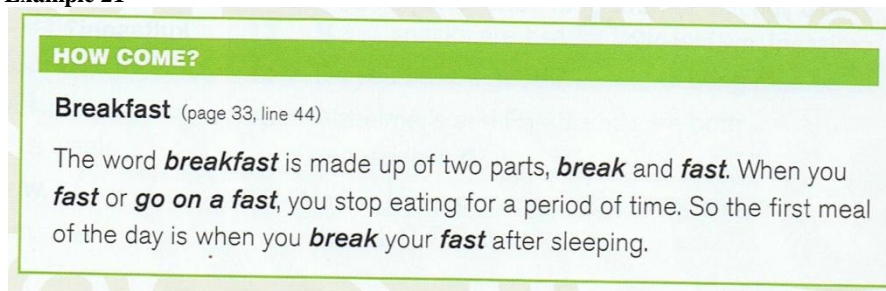
In this chapter, broad interpretation of the summarized results is made, as well as some comparison between *English United* and *ProFiles* as a series. This comparison is necessary, since the aim of the present study was to discover how derivation is instructed and exercised upon in upper secondary school textbooks; as the results show, the two series chosen proved to be both similar in some respects as well as quite different in others. The differences are in this section acknowledged and compared accordingly.

English United contains an extensive amount of exercises, 56 in all, of which 49 were not part of the separate *disparate* class, most of which, 33, focus on affixation (Appendix I). The other three processes of derivation (compounding, conversion and stress placement) are not entirely forgotten, though they are rarely practised on or instructed explicitly. Sometimes they occurred as a partial exercise, i.e. as part of one that clearly had separate sections or elements clearly dedicated to something other than derivation. The series also contains a relatively large number of exercises that are seemingly intended to be routine for the learners, since they contain neither instructions (on the derivation process at hand) nor examples. With respect to types of activities, *English United*, like *ProFiles*, favours direct practice, while also having exercises with a

multitude of other activities or even multiple types, such as finding examples of derived forms and then practicing on them (see for instance Example 12 in Chapter 5.2).

Derivation is dealt more sparsely in *ProFiles*, yet in a different yet focused manner; the series contains 31 exercises relevant to the present study, of which 18 focus on affixation while 11 were part of the *disparate* class (Appendix II). Out of all 20 classified exercises (thus not including the *disparate* ones) only one was a partial exercise, hence the description of closer focus seems applicable to the series. There is also rather little in the way of instruction on derivation that would be immediately available to the learners, since the textbooks of the first six mandatory upper secondary school courses contained only two instances of the so-called *instruction box*, one of which (Example 21) was so minor in scope (single word, very small visual size with respect to the page i.e. easily missed) that it was labelled as partial only. It is possible that the learners are intended to receive further instruction from the teacher based on teacher's material, which fell outside the scope of the present study.

Example 21



(Elovaara, Ikonen, Myles, Mäkelä, Nikkanen, Perälä, Salo and Sutela 2008: 35)

The main similarities between these two series with regards to instructing and exercising derivation seem to be that, firstly, affixation is (correctly) understood to be the most fruitful and useful process of derivation; it is instructed and exercised most often out of all, even leading to near-exclusion of stress placement as a separate process. Secondly, having the learners directly practice derivation, by for example deriving new forms or figuring out the meanings of affixes, is the most common type of activity. Thirdly, derivation often falls under a heading of *grammar*, if any, which is assumed to be the result of a tradition in the way certain phenomena such as the *-ing* suffix are instructed in Finnish schools. This assumption is due to both series, which have a considerable difference in age, often placing various exercises and instruction on derivation under such a heading.

The greater difference between the series, beside the obvious one regarding the amount of instruction and practice on derivation, is that while *English United* is relatively uniform in its approach to instructing derivation, *ProFiles*, while having less variety in terms of different processes handled and working methods, has a more varied approach, reflected in the relatively larger number of *disparate*-classified exercises. As explored in Chapter 5.3, there are various different approaches, some of which may seem more fruitful than others, while some seem outright questionable with regards to their usefulness (see Example 18) yet do definitely serve a purpose, albeit possibly different than intended.

In summary, it can be said that *English United* takes a very thorough approach to instructing derivation, while *ProFiles* has derivation as more of an underlying theme and gives, to make a logical assumption based on the considerably lower amount of exercises and instruction, much more freedom to the teachers as to when and how to instruct derivation, as well as places much more trust in the abilities of the teacher to remember to do so. In *English United*, there are cases of direct instruction while at the same time many exercises are routine, i.e. there are no instructions in the exercise or its immediate vicinity. There is also a large variety in the types of activities employed, ranging from arguably old-fashioned ones (translating sentences from Finnish to English, or vice versa) to cognates of instruction and practice, wherein learners are expected to fill up blanks in an instructional table, for example. In *ProFiles*, the instructions are down to a single full instance and a single partial one, and the activity types, as far as the present study could reliably classify, are very uniformly of direct practice. However, *ProFiles* has much more in the way of different, arguably more communicational and even radical types of activities – which very likely are intended to rely, in execution, on the teacher's ability to judge the capabilities and needs of their learners. *English United* leads both the teacher and learner by hand consistently, while *ProFiles* gives great freedom to the teacher with regards to timing and amount of instruction, as well as providing supplementary exercise, and provides the learner with necessary basic exercises. Finally, it must be reminded that these results are limited in scope; they only show what the learners would traditionally see, that is, the textbooks themselves.

6. Discussion

In this chapter, some implications of the results are explored. The *disparate* class of exercises highlights some challenges evident in the analysis method of the present study, as will be explored in Chapter 6.1. While there are very little studies comparable in scope and aim to the present one, there are a few, with which the results are compared as well as further reflected upon in Chapter 6.2. Based on the results obtained in the present study, some recommendations on how to help learners obtain better word formational skills are given in Chapter 6.3 for the authors of future textbooks, as well as teachers who make use of textbooks.

6.1 Challenges in the present study: The disparate class

The *disparate* class of exercises is a multifaceted issue. First of all, it must be stressed again that the class does not consist of exercises in any way inferior to the rest, but of exercises that were, for a variety of reasons explored in Chapter 5, simply different. The differences ranged from a perceived difficulty by the researcher to accurately measure the **extent** to which an exercise handled derivation or other matter, such as the use of inflectional affixes, to a single example of an exercise that contained, among affixes and syllables, fully unreal pieces of words that the learners were expected to be able to combine into derived word forms.

On the one hand, it was clear that these exercises had to be included in the analysis, since it was in each case apparent that the exercise did also handle derivation, while on the other hand it was impossible to **reliably** pronounce which of them had more derivation than the others, for example. By separating those exercises into a class of their own, the reliability of the results is arguably higher, in that what could be analysed accurately with the chosen method of analysis, was analysed accurately, while that which could not be (the *disparate* class) was separated, yet recognised.

This recognition was important because of two important reasons. Firstly, the variety of features in the exercises incorporated in it was such, as has been established in Chapter 5, that it would have been implausible to ignore the exercises and claim that the analysis was accurate, while it would have been equally implausible to classify them among the rest. Secondly, the exercises were also considerable in number, particularly with respect

to the *ProFiles* series; 11 of 31 exercises ended up in the *disparate* class for reasons explored in Chapter 5.3. Of all 87 exercises discovered in both series, 18 altogether were of this class. Thus, simply ignoring all or some of the disparate exercises would have led to both loss of data and lesser accuracy. Thirdly, if some would have been ignored it would have been extremely difficult to, again, **reliably** justify why this or that exercise was excluded. Having established the necessity of the class, its emergence still asks for a reason.

One possibility, which must be accepted as part of using a qualitative analysis method, is that it is subjective in nature, i.e. another researcher using a similar methodology would not have classified the exercises in the class as different from the rest. However, the choices made in the present study that led to the formation of this class were carried out consistently in a systematic manner and are openly discussed (see Chapters 4 and 5). This would mean that the emergence of the class shows that it was necessary to have a class for those exercises that cannot be compared with the rest.

Another possibility is that the emergence of this class shows that inductive content analysis as a method may not be the best one for examining this type of content. Exercises used as data in the present study were exceedingly variable in their form, i.e. textual vs. visual organisation, textual vs. visual content, the content of the instructions vs. the form they were given in, while at the same time following certain underlying principles of organisation. These principles were discovered inadvertently as part of the research process, which was inevitable as each relevant page (2,095 total) in each book was examined a total of four times, but discussing them falls outside of the scope of the present study. Suffice to say that there certainly seem to be principles for constructing exercises in textbooks, which would probably qualify as a feasible subject for future research, and these principles might have, in hindsight, served as another type of classification system.

6.2 Reflection on and comparison of the results with those of previous studies

One motive for choosing textbooks as data in the present study was the observed degree of reliability and usefulness ascribed to them by Finnish teachers (Huhta et al. 2008; Luukka et al. 2008). This was necessarily done with the expectation that textbooks, as a central component of teaching, would necessarily contain a great deal of instruction on

derivation. This expectation now stand in stark contrast to the results of the present study: not only do both series contain surprisingly little in the way of direct textual instruction, especially on some of the more minor processes considered to be part of derivation in the present study, but one of the series, *ProFiles*, actually contains substantially fewer exercises and instructions than does *English United*.

There are two possible reasons for this. One is the obvious limitation of the data: since no teacher materials were included as data, it is possible that those materials for each series contain more exercises as well as instructions on derivation. The other possibility is that for authors of textbooks, other considerations supersede the importance of instruction on derivation. López-Jiménez (2009: 74) considered one possibility for textbooks treating vocabulary instruction in general inefficiently to be the influence of communicative approaches to language teaching undermining the preponderance of explicit instruction, which is what may or may not be true here. Perhaps future studies could further ascertain the extent to which vocabulary and vocabulary learning vs. communicative and other language skills are instructed in textbooks at this level.

It appears that the results of the present study show that this one particular aspect of vocabulary instruction, instruction on word formation and particularly derivational skills, is something that textbooks could certainly do better. Similar notions were arrived at by López-Jiménez (2009), Alsaif and Milton (2012) as well as Konstantakis and Alexiou (2012), all of whom studied different aspects of vocabulary instruction in textbooks (for further discussion of these previous studies see Chapter 3.5).

A notable, concrete example of this is that most L2 learners of English are expected to reach B2.1 level of proficiency according to the CEFR (Common European Framework of Reference), which is close to the level where learners can fully utilize their derivational knowledge according to Mäntylä and Huhta (2013). Thus, even before the learners are expected to have reached the requisite degree of proficiency for fully using derivational knowledge, they seem to be deprived of instruction and exercises that would help them develop this knowledge – at least, as far as textbooks are concerned. Another possible avenue for future research would be to determine whether textbooks address this issue on earlier levels of education, as Nyssönen (2008) did recommend to be done.

6.3 Recommendations to teachers, as well as authors of upper secondary school textbooks

Authors of textbooks for upper secondary school should include more instructions as part of the textbooks themselves. They can expect the learners who use their textbooks be familiar with the language and its use, which would mean that the learners can make do with less instruction on specifics of the language. However, this does not mean that learning important aspects of vocabulary learning, such as word formation skills, would not need instruction. Reminding teachers to instruct the students is all well and good, but the authors cannot control whether or not the teachers give such instruction. Therefore, providing more direct textual instruction to the learners would be the best thing that authors of textbooks could certainly do to be more certain that learners do not miss on an important aspect of vocabulary learning.

Other things authors could do would be to include more exercises on word formation, and make it explicitly part of vocabulary learning. As *English United* demonstrates, deriving new word forms can be a part of regular vocabulary exercises, but one that has the added benefits of learners practising on aspects of language they can personally make use of elsewhere, in wholly different contexts. To avoid confusion, it would also be advisable to separate instruction and exercises on word formation from the grammar-labelled sections where they often seem to be, simply because it has very little (or nothing at all) to do with grammar. If textbooks contain explicit instruction on skills such as composition writing, communication and grammar explicitly, then why not have a similar degree of explicitness for vocabulary skills too?

Teachers who make use of textbooks should remember the demonstrated learner benefits of better morphological awareness, which can be promoted by teaching them about word formation: the facilitation of reading skills and easier understanding of new lexical items, for example (for full discussion of learner benefits see Chapter 3.4). It must also be stressed that, as supported by Schmitt and Zimmerman's study of 2002, learners do not simply absorb whole word families, but benefit from explicit instruction. The teacher ultimately bears the responsibility for remembering these factors, and would do well to keep in mind that it is, even with basic logic only, much more productive to teach learners how to build up new words than just teach them more and

more vocabulary. There even exists a list of affixes to teach to learners that a qualified teacher could certainly make use of (Nation 2001, see Chapter 3.4).

Furthermore, even though drawing of parallels between derivational processes in the learners' first language and those in English appears to be extremely rare, based on the results of the present study, teachers should remember that such comparison would be nevertheless useful. This is especially true when the learners' first language is Finnish, since derivational processes, especially compounding and affixation, are very frequently made use of in Finnish language – thus, those learners can be expected to be already familiar with the principles of these processes. It falls to the teacher to make use of this familiarity.

7. Conclusion

The present study set out to discover how derivation, understood as a broad category of word formation processes of affixation, compounding, conversion and stress placement, was taught in upper secondary school English textbooks. This goal was chosen because of the importance of morphological awareness in facilitating the learners' acquisition of vocabulary, and because of the teachers' observed reliance on textbooks as material in Finnish language education (Luukka et al. 2008). Qualitative content analysis was chosen as the analysis method with the intent of being able to accurately capture and describe all possible occurrences of derivation in the analysed textbooks. The textbooks analysed were courses 1-6, that is, all currently mandatory courses of English in Finnish upper secondary schools (Lukion opetussuunnitelman perusteet 2003) of the series *English United* and *ProFiles*, which is 12 textbooks in total, in which 87 exercises were analysed. To cover this much material, a total of 2,095 relevant pages and all of the mandatory courses across two series, it was necessary to limit the study to just the textbooks themselves and leave aside any teacher materials, which is one of the limitations of the present study. A point in defence to be made is in the perspective; focusing on the textbooks provides a view of the bare minimum material that learners would nevertheless receive and be able to utilize independently.

The present study also had certain other limitations. One was that the chosen analysis method, qualitative content analysis, proved to be somewhat challenging. The variety

and quantity of textual material analysed proved to be such that forming classes and describing them accurately resulted, in both series, on the formation of a special *disparate* class of exercises. This class was understood to be equal in value to the others, but contained exercises that for various reasons could not be accurately and reliably compared with the others. The second limitation in the present study is that, because the analysis was conducted inductively, or by examining the data and forming a classification system based on features that rose from the data itself, it is very difficult to give any recommendations on what authors of textbooks should do in the future, and how. It also means that the results are difficult to generalise reliably or compare with those of other studies – but since there seems to be next to no research on how derivation specifically is instructed in textbooks, the present study does occupy a distinct niche in the field of foreign language education research. The third, arguably obvious limitation of the study is that because only textbooks are examined, the results cannot be used as basis on observing how derivation is actually taught in Finnish upper secondary schools, since each teacher is ultimately free to utilize, or not to utilize, textbooks in ways that they see fit.

Despite these limitations, in the present study some clear indications on how derivation is instructed in these series of textbooks were obtained. The results show prominent differences as well as certain similarities in the way the series treat derivation. The older *English United* series contains considerably more exercises and especially instruction on derivation than does *ProFiles*, though even *English United* could have used more explicit instruction. This is especially prominent when keeping in mind that, depending on the way the teacher utilizes a textbook, it may have a lesser or greater prominence among the material a learner has available for possible additional self-study. In both series, there were cases where derivation was mixed in with inflection by instructing derivational and inflectional affixes in the same set of exercises, the efficacy of which the present study cannot assess. Other special cases included exercises that were labelled as dealing with something else entirely, yet were found to be fundamentally about derivation as well, and very few examples of exercises that were actually questionable in feasibility. Altogether, the results suggest that especially textual instruction on derivation in these textbooks is very sparse, while exercises are plentiful, especially in the somewhat older series *English United*. In this respect, the results show that *ProFiles*, the more modern of the two series, contains less than half the number of exercises and elements of instruction on derivation than *English United* does. This

would suggest that more modern textbooks seem to either relocate instruction on derivation to the teacher materials or simply contain less of it. However, this is simply a suggestion of the results and cannot be generalised, due to the present study only examining two of such series and the fact that they were published within the same decade.

The present study occupies a distinct niche in the field of L2 education in Finland by providing an analysis of what kind of material has been used, and in the case of *ProFiles*, may be used to teach upper secondary school students derivation. This is an important word formation skill, which in itself facilitates a number of other learner skills, especially when reading and encountering new word forms (White, Power and White 1989; Kieffer and Lesaux 2008; Zhang and Koda 2014; Siegel 2008). The present study also reminds teachers that textbooks are, after all, products and as such can vary widely in their approach to various themes of variable importance. Thus, the teacher bears the ultimate responsibility in making sure that their learners are given the best tools to learn the language.

Further research on how vocabulary instruction and, particularly instruction on word formation skills such as derivation, are approached in textbooks, would be useful to facilitate better comparison and obtain a clearer picture of the state of the field of Finnish second-language textbooks. For instance, due to the lack of research it is impossible to evaluate the following hypotheses: the dearth of derivation instruction in *ProFiles* is due to more and more modern textbooks of earlier levels of education choosing to handle word formation earlier, or derivation is actually so prominent in teacher materials of modern textbooks that it is less prominent in the textbooks themselves. These must remain hypotheses only, until further research either confirms or refutes it.

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Appendix II: Coded exercises in the ProFiles series: clustered hierarchy.

Class	Subclass level 1	Subclass level 2	Codes
Find examples	Affixation		PF_FEAFF_Exp_Whole_NI_NE
			PF_FEAFF_Exp_Whole_NI_NE
Instruction box	Affixation		PF_IBAFF_Exp_Whole
	Compounding		PF_IBCOM_Exp_Part
Practice	Affixation	Examples AND instructions	PF_PRAAFF_Exp_Whole_I_E
			PF_PRAAFF_Exp_Whole_I_E
			PF_PRAAFF_Exp_Whole_I_E
			PF_PRAAFF_Exp_Whole_I_E
			PF_PRAAFF_Exp_Whole_I_E
			PF_PRAAFF_Exp_Whole_I_E
			PF_PRAAFF_Imp_Whole_I_E
		Examples OR instructions	PF_PRAAFF_Exp_Whole_I_NE
			PF_PRAAFF_Exp_Whole_I_NE
		NEITHER examples NOR instructions	PF_PRAAFF_Exp_Whole_NI_NE
			PF_PRAAFF_Exp_Whole_NI_NE
			PF_PRAAFF_Exp_Whole_NI_NE
			PF_PRAAFF_Exp_Whole_NI_NE
			PF_PRAAFF_Exp_Whole_NI_NE
PF_PRAAFF_Exp_Whole_NI_NE			
Disparate		PF_PRAU_Exp_Whole_NI_NE	
		PF_UU_Imp_Whole_I_NE	
		PF_PRAAFF_Exp_U_NI_NE	
		PF_PRAAFF_U_U_I_E	
		PF_PRAAFF_U_U_I_NE	
		PF_IBCON_Imp_U	
		PF_PRAU_Imp_U_NI_NE	
		PF_PRAU_Imp_U_NI_NE	
		PF_PRAU_Imp_U_NI_NE	
		PF_PRAU_Imp_U_NI_NE	

Appendix III: Taxonomy of markers used to generate codes.

Series indicator	1. Working method	2. Process of derivation	3. Exercise explicitly or implicitly deals with derivation	4. Whole or part of the exercise deals with derivation	5. The instructions on the derivation process within the exercise	6. Examples of the derivation process within the exercise
EU = <i>English United</i>	PRA = Practice	AFF = Affixation	Exp = Explicit	Whole = The whole exercise deals with derivation	I = The exercise contains instructions on the derivation process	E = The exercise contains examples of the derivation process
PF = <i>ProFiles</i>	FE = Find examples	CON = Conversion	Imp = Implicit	Part = Part of the exercise deals with derivation	NI = The exercise does not contain instructions on the derivation process	NE = The exercise does not contain examples of the derivation process
	IB = Instruction box	COM = Compounding				
	TR = Translate	SP = Stress placement				
	FEPR = Find examples + Translate	M = Multiple				
	IBPR = Instruction box + Practice					
	IBTR = Instruction box + Translate					
	PRATR = Practice + Translate					
	U = The Unidentified marker: one or more of these aspects could not be reliably measured					