
YASUO ICHIKAWA
ATSUKO SHIMIZU
RUMI TAKAHASHI
TAKASHI KANAZASHI
YASUTAKE ISHII

1. Introduction

"The new *LDOCE* is a magnificent culmination of innovative energetic research along with computational techniques that are married to well-honed educational and lexicographical skills." (Foreword by Randolph Quirk, *Longman Dictionary of Contemporary English*, New Edition)

The indispensability of computer-based works in the compilation of the...

I CHIKAWA, SHIMIZU, TAKAHASHI, KANAZASHI, ISHII

2

dictionary and the importance of the accompanying CD-ROM of the New Edition can be easily seen in the names given to the jobs allocated in the compilation, such as Corpus and CD-ROM Development, Computational Linguist and CD-ROM Project Management, Project and Databases Administrator, and CD-ROM Development cited in the Acknowledgements of the new edition of Longman Dictionary of Contemporary English [LDOCE4]. They are all new works required to the compilation of this dictionary.

The catchwords — THE LIVING DICTIONARY, FULL COLOUR THROUGHOUT, INNOVATIVE CD-ROM — on the back cover of the new edition of LDOCE truly catch the reader’s eye. Coordinated with the foreword partly cited above, they give us a glimpse of the significant features of the new LDOCE4. Full-colour printing has undoubtedly increased the ease of using the dictionary; the word to be looked up immediately leaps out. The 3,000 most common English words are printed in red; related words are printed in black against a purple background in a WORD FOCUS BOX, which is a completely new feature, and in a WORD CHOICE BOX. Collocations are in a light blue box. Graphs which show the frequency of given words have a pink background. The CD-ROM provides dictionary users with a tremendous amount of information about living English, and the very use of the CD-ROM makes us feel that this really is a living dictionary. This new dictionary with a CD-ROM seems to set a course that EFL dictionaries in the present and future Information Age should take.

It is pointed out in the Introduction that LDOCE4 has been compiled to achieve the consistent aim of making the dictionary more helpful for advanced level students of English, and for that purpose examples and collocations receive a greater focus and the inclusion of the CD-ROM assists this.

Only by comparing “How to use the dictionary” in the new edition with “Guide to the Dictionary” in the previous edition, can we probably say that this aim has been mostly achieved: the structure and main features of the new edition are very clearly presented. New numerical values such as S2 and W2 behind the entry word indicate how important the word is. Warning notes, which must be based on error analysis, are very helpful to understand the proper usage of certain words. Marks such as =, ≠, → are also very useful and effective to show synonyms, antonyms, related words, and so on. Needless to say, a close examination of the main aspects of the dictionary is essential for a fair assessment of the dictionary.

We will compare nine aspects of the dictionary — entries, pronunciation, definition, examples, language notes, grammatical information, collocations, word focus/word choice, and illustrations — mainly with those of the previous edition and partly with those of other competing dictionaries. We will examine the CD-ROM itself and if necessary each aspect mentioned above will be checked on the basis of the information given by the CD-ROM. We will also include in this analysis the results of user-research to check the user-friendliness of this dictionary. We hope that this analysis will give a fair appreciation of LDOCE4 and can contribute to the further improvement of it and the making of the ideal EFL dictionary.

2. Entries

In this chapter, we will examine the following topics: (1) a comparison of the number of entries based on a limited sampling from LDOCE3 and LDOCE4, (2) differences in the treatment of entry words in both editions, (3) a brief comparison of the way in which entry words are treated in LDOCE4 and other competing EFL dictionaries, and (4) a comparison of the treatment of the graphs in both editions.

2.1. Comparison of the number of entries

LDOCE4 claims to contain “106,000 words and phrases”, which is a 32.5% increase over the LDOCE3 listing of “over 80,000 words and phrases”. Considering the 19.4% increase of pages allocated for entries in the fourth edition (i.e. LDOCE3 has 1,668 pages while LDOCE4 has 1,992 pages), LDOCE4 must have either contrived to use the limited space economically or used the CD-ROM edition effectively to contain many more entries. We have counted the entries in the following four parts of each dictionary, i.e. A1 — account, edgy — embroider, manic depression — Mason jar, and set — shave, which both editions con-
Table 1 Number of entry words

<table>
<thead>
<tr>
<th></th>
<th>LDOCE3</th>
<th>LDOCE4</th>
<th>Plus/Minus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headwords</td>
<td>1029</td>
<td>1114</td>
<td>+85 (+8.3%)</td>
</tr>
<tr>
<td>Idioms &amp; Phrases</td>
<td>224</td>
<td>218</td>
<td>~6 (~2.7%)</td>
</tr>
<tr>
<td>Phrasal verbs</td>
<td>32</td>
<td>35</td>
<td>+3 (+9.4%)</td>
</tr>
<tr>
<td>Derived words</td>
<td>180</td>
<td>173</td>
<td>~7 (~3.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>1465</td>
<td>1540</td>
<td>+75 (+5.1%)</td>
</tr>
</tbody>
</table>

Each part occupies almost 10 pages in every 500 pages, totaling nearly 40 pages in all, roughly 2% of 1,992 pages of LDOCE4. Table 1 above is the result.

According to this table, LDOCE4 has increased its words and phrases only 5.1%, which shows a significant gap between the acclaimed number and what we have counted. One of the conceivable causes of this discrepancy may be the inclusion of the number of entry words on the CD-ROM, which contains additional 182 headwords in the above-cited parts of the dictionary. The inclusion increases the percentage of entry words and phrases to 17.5% (i.e. LDOCE3: 1,465; LDOCE4: 1,722). There is still, however, a considerable gap. If we limit the number to that of headwords and derived words, the inclusion increases the percentage to 21.5% (i.e. LDOCE3: 1,209; LDOCE4: 1,469). If we further limit the number to only that of headwords, the inclusion increases the percentage to 25.9% (i.e. LDOCE3: 1,029; LDOCE4: 1,296). Judging from this data, LDOCE4’s assertion as to the number of entries must be based on the number of words and phrases contained on the CD-ROM edition.

2.2. Differences in the treatment of entry words

2.2.1. According to an analysis of the previous edition (Urata et al. 1999: 69), the addition of many “headwords” and “phrases and idioms” contributed to the increase of the number of entries in LDOCE3. However, as we have seen above, the number of idioms and phrases has not increased much in LDOCE4. So we will next focus on the increase of the number of headwords and derived words and the treatment of them in both editions.

In our sampling there are 39 headwords which were contained in LDOCE3 but have been omitted in LDOCE4, out of which 25 headwords (acc., according as, accordion² (adj), effectuate, efflux, Electra complex, electric eel, electric eye, embrocation, mantilla, mapping, anti-Marketeer/pro-Marketeer, marmoreal, maroon² (n), settle² (n), sex-linked, sexology, exploitation, sexpot, shad, shadow puppet, shallow² (v), sharper) have been omitted in LDOCE4. Five of them (abnormally, accidentally, electrification, embitter, emboss) have been demoted and treated as derived words and another five (electric blanket, manual labor, manual worker, mashed potato, shaped) have been included as examples in LDOCE4. Two of them (ABC², manor house) have been included as part of the significance of the headword, and another two (elbow-room, severance pay) have been treated as phrases and included as a part of the meaning.

The integration of headwords (A, above, either) has partly contributed to only a slight increase in the number of headwords in LDOCE4. For example, there are three headwords for above (i.e. above¹ (prep); above² (adv); above³ (adj)) in LDOCE3 while only two of them (above¹ (adv, prep) and above² (adj)) appear as headwords in LDOCE4. Though three headwords (about-turn, mantel, mantelshelf) were separate headwords in LDOCE3, they are included with other headwords (about-face and mantelpiece) in LDOCE4. Two headwords (Maosim, Marshal of the Royal Air Force) are only included in the CD-ROM edition.

In our samples there are 89 headwords which have been newly added to LDOCE4. Four of them (A3, A4, Mason, seventh²) have been separated from the word meaning of other headwords, one of them (marital status) has been separated from the example, and another ten of them (abolition, editorial¹ (adj), egotist, elasticity, email² (v), embittered, emblazoned, manicurist, Marxist² (n), severance) have been raised to headwords from derived words. All the other headwords, which follow, have been newly added as headwords in LDOCE4: A&E, A5, AAA, aargh, abaya, abs, absolute² (n), absolute majority, academe, accepted, access course, accessorize, access provider, access road, accident and emergency, EDI, editorialize, -edu, educable, educative, e-fatigue, e-fit, eggnog, ego trip, Eid, 8, elasticated, electric blue, electronica, electronic banking, electronic...
In our sampling there are 180 derived words in LDOCE3: abandonment, abasement, abbreviation, abdication, abdominal, abduction, abstraction, abjectly, abjection, abortion, abridgment, abrogation, abruptly, abruptness, absent-mindedly, absent-mindedness, abstainer, abstemiously, abstentiousness, abstinence, abstractedly, abstractness, absurdity, abusively, abusiveness, abysmally, academically, accentuation, acceptably, accessibility, acclimatization, edification, edit (n), editorial (adj), effectiveness, effectually, efficaciously, efficiently, effing (adv), effortlessly, effulgent, effusively, effusiveness, egalitarianism, egocentrically, egocentricity, egoist, egoistic, egomania, egotistically, egotist, egre- giously, eighth, ejaculation, ejection, elaborately, elaborateness, elaboration, elasticity, electrically, electrifying, electrified, electrification, elec- tromagnetic, electronically, elegantly, elegance, elicitation, elision, eligibility, elitism, elitist, Elizabethan, elocutionary, elocutionist, elongation, elongation, eloquently, eloquence, elucida- tory, elusively, elusiveness, emanation, e-mail (v), emanation, emancipation, emasculation, embalmer, embarkation, embarrassingly, embellishment, embezzlement, embessler, embittered, emblematically, embossed (adj), embo- ridered, manic-depressive, manicure, manicurist, manifestly, manipulation, manliness, manishly, manoeuvrability, manorial, man-to-man, manually, manual work, manure (v), Maoist, Maori, man reader, marauder, marked, marriageability, marriageable, Mark, Martian, marvellously, Marxist (n), masher, masochist, masochistic, seventh (number), seventeenth, severance, severally, severity, sexagenarian, sexist, sexologist, sexually, sexily, sexiness, shabbily, shabbiness, shagginess, shakily, shakiness, shallowly, shallowness, shamanism, shamefacedly, shamefully, shamefulness, shamelessly, shapelessly, shapelessness, shapeliness, sharing, sharpness. 12 of them (i.e. the words in bold face) have been raised to headwords in LDOCE4, and 27 (i.e. the underlined words) have been omitted in LDOCE4. The rest of them are also contained as derived words in LDOCE4.

The following 32 words have been newly added as derived words in LDOCE4: abductee, abnormally, abridgment, accidentally, accionist, editorially, educationally, eerily, effulgence, egotistic, eighteenth, eighth (pron), eightieth, electric blue (adj), electrification, eleventh, embitter, emblazon, emboss, marginalized, marginalization, marketeer, marsupial, mashed, masochistically, seventeenth, seventh, severity, sex offence [sex offense], sex tourist. And seven of them (i.e. the underlined words) have been denoted from headwords. Here the treatment of embitter and emboss as run-on sub-headwords, with embittered and embossed being given as headwords in LDOCE4 may deserve special mention here because it shows one clear example of the improvement over LDOCE3, where the two verbs were given as headwords and the adjectives were treated as run-on derivatives. We can see from the Examples bank on the CD-ROM that their adjectival uses are more common, and that must be one reason for the reversed treatment.

2.2.2. LDOCE4 states in its user’s guide, entitled “How to use the dictionary,” (pp. xii-xvii) that “If a word is used in a large number of phrases in spoken English, these phrases are shown together in a box . . . ,” which has been made possible by “our extensive corpora of British and American spontaneous speech.” (Introduction, p. xi) Here we will assess the treatment of spoken phrases in both editions. LDOCE4 has spoken phrase boxes under the following 40 headwords: all2 (adv), ask, beat1 (v),
believe, come, day, fair, forget, get, good\(^1\) (adj), have\(^2\) (v), hear, heaven, here, how, just, keep\(^1\) (v), know\(^1\) (v), let\(^1\) (v), like\(^2\) (v), look\(^1\) (v), mean\(^1\) (v), mind\(^2\) (v), minute\(^1\) (n), nice, no\(^1\) (adv), now\(^1\) (adv), real\(^1\) (adj), really, say\(^1\) (v), story, suppose, tell, that\(^1\) (determiner pron), there\(^2\) (adv), think\(^1\) (v), this\(^1\) (determiner pron), way\(^1\) (n), what, why\(^1\) (adv, conjunction). Spoken phrases under the 18 headwords in bold face are newly added in LDOCE4, and those under the other 22 headwords are contained in both editions. Of these boxes appearing in both editions, the total number of spoken phrases in LDOCE3 is 266, while in LDOCE4 it is 259. The slight decrease in number may depend partly on the subtle difference in the selection of spoken phrases in both editions and partly on the fact that we have counted spoken uses as well as spoken phrases which are both contained in the boxes for just\(^1\) and look\(^1\) only in LDOCE3. In LDOCE4, phrases in the spoken phrase boxes of the 27 underlined words are printed in blue, but the others are printed in black apparently for no particular reason, which should be corrected.

In the box under all\(^1\) in LDOCE4, for example, five phrases (that’s sb all over, be all in, sb was all . . . , not all that, sb shouldn’t be all that) and their meanings are shown in addition to the headword on its own meaning very. Furthermore, several other spoken phrases labeled as spoken are presented in the sections dealing with phrasal verbs (e.g. come on! and come on in! over/up etc s.v. come on) and other places (e.g. I hope so, I hope not, I’m hoping, I hope (that), I should hope so (too)! I should hope not s.v. hope\(^1\) (v), and not a hope!, not a hope in hell (of doing sth), some hope/what a hope! s.v. hope\(^2\) (n)). But come in! and look out!, both in a spoken phrase box, are also phrasal verbs, in which case users might be confused as regards the section they should refer to.

The following are headwords under which there are boxes for spoken phrases or/and spoken uses in LDOCE3 but not in LDOCE4: bet\(^1\) (v), better\(^1\), bit\(^1\) (n), certainly, close\(^2\) (adj), dead\(^1\) (adj), else, exactly, eye\(^2\) (n), hope\(^1\) (v), pardon\(^1\) (v), point\(^1\) (n), quite, right\(^1\) (adj), so\(^1\) (adv), something, sorry, sort\(^1\) (n), take\(^1\) (v), talk\(^1\) (v), thing, want\(^1\) (v), watch\(^1\) (v), wrong\(^1\) (adj). Judging from the fact that phrases in headwords such as story, that\(^1\) and there\(^2\) are newly treated in the spoken phrase boxes in LDOCE4 probably because they had many phrases labeled ‘spoken’ in LDOCE3, it seems better to group together phrases under headwords such as hope\(^1\) and pardon\(^1\) in spoken phrase boxes as well in LDOCE4. Under this\(^1\) in LDOCE4, there is a box specified only as ‘spoken phrases’, but it may be better to be specified as “spoken uses and phrases” as in LDOCE3, though it may spoil the desired unification of the description.

2.3. Comparison of the treatment of entry words

2.3.1. We have also counted the headwords and the derived words in two parts (i.e. A — account\(^2\), and manic depression — Mason jar) in LDOCE4 and other competing EFL dictionaries (i.e. Oxford Advanced Learner’s Dictionary, the 6th edition, Cambridge Advanced Learner’s Dictionary, the New edition, and COBUILD Advanced Learner’s English Dictionary, the 4th edition). There are 81 words\(^1\) which are contained in LDOCE4 but not in OALD6, while there are 19 words\(^2\) which are contained in OALD6 but not in LDOCE4. There are 91 words\(^3\) which are contained in LDOCE4 but not in CALD, while there are 46 words\(^4\) which are contained in CALD but not in LDOCE4. There are 117 words\(^5\) which are contained in LDOCE4 but not in COBUILD4, while there are 19 words\(^6\) which are contained in COBUILD4 but not in LDOCE4.

The following 41 entry words are all contained in LDOCE4, but not in any of the other three dictionaries: aargh, abalone, abo, able seaman, A-bomb, abed, abnegation, abode (the past tense of abide), abstinence, abusiveness, academic year\(^*\), accelerando, accessibly, accordionist, mannishly, mano a mano, -manship, (also man-size), man-year, map-reading, map-reader, marabou (marabout), marathoner (also marathon runner), marginalized, mariachi, market day\(^*\), market-driven\(^*\), market economy, market-led\(^*\), marketer, marriage lines, marriage vow, Marseille, marsh gas, maser, masochistically, Mason jar. The nine underlined words are contained as derived words in LDOCE4 and the four asterisked words are not headwords but examples in OALD6.

The following 50 entry words are all contained in LDOCE4 but not in two of the three dictionaries: aargh, abalone, abo, able seaman, A-bomb, above board, abs, abstinence, abstinent, abusively, a/c, accented, accepted,
and its different parts of speech are shown on the right margin in small letters. As to an alternative spelling of a headword, LDOCE4, OALD6, are placed repeatedly according to their meanings without being given different numbers, and in COBUILD4 the headword is shown only once. In CALD, the headwords are put together after phonetic symbols, and the definitions of example, in LDOCE4, for the verb. In OALD6, the parts of speech (e.g. noun, verb, and so on) are examples or a part of the definition, and Academy Award (e.g. Oscar), margin of error (also marihuana), market gardening — are contained in two of the three dictionaries but not in LDOCE4, in which absorbed and margin of error are examples or a part of the definition, and Academy Award (also Oscar) is on the CD-ROM. Some other words (e.g. Maoism, Maoist, Marshal of the Royal Air Force, absurdist) which are contained in at least one of other dictionaries cited above but not in LDOCE4 can be found on the CD-ROM edition.

From this brief comparison it can be said that LDOCE4 has the greatest number of entry words compared with the three competing dictionaries.

2.3.2. Let us now look briefly at the way in which headwords, the conjugation of verbs, the plural form of nouns and so on are presented in each dictionary. Concerning the headwords, the main difference is the numbering of identical headwords, which only LDOCE4 employs. For example, in LDOCE4, market1 is used for the noun and market2 is used for the verb. In OALD6, the parts of speech (e.g. noun, verb, and so on) are put together after phonetic symbols, and the definitions of market come after the small square box in that order. In CALD, the headwords are placed repeatedly according to their meanings without being given different numbers, and in COBUILD4 the headword is shown only once and its different parts of speech are shown on the right margin in small letters. As to an alternative spelling of a headword, LDOCE4, OALD6, and CALD use almost the same style in which British spelling comes before American spelling, but slightly different terms are used for each of them. For example, the headword marvellous is presented as [marvellous BrE; marvelous AmE], [marvellous (BrE) (AmE marvelous)], and [marvellous UK, US marvelous] in LDOCE4, OALD6, and CALD respectively. In COBUILD4, there are notes following marvellous on alternative forms like “in AM, use marvelous” in a box. In LDOCE4 and COBUILD4, a different color is used for each spelling, but in OALD6 and CALD they are printed in the same color. Let us look at another similar example, marginalize. It is put in the following different ways [marginalize also -ise BrE], [marginalize (BrE also -ise)], and [marginalize, UK USUALLY -ise], and [marginalize (marginalizes, marginalizing, marginalized) “in BRIT, also use marginalise”] in the four dictionaries respectively. As to the derived word marginalization, LDOCE4 does not give the British spelling, but OALD6 and CALD give [marginalization, -isation] and [marginalization,lich, USUALLY -isation] respectively. COBUILD4 does not contain this sub-headword. As to the conjugation, as is shown above, COBUILD4 gives the third person singular present form, the present participle form, and the past participle form for every verb, while the other three dictionaries adopt a much simpler style. For example, LDOCE4 gives [mapped, mapping], [marred, marring], OALD6 and CALD give [map verb -pp-] [mar verb -rr-], and COBUILD4 gives [[maps, mapping, mapped] [marred, marring, marred] for the headword map and mar. For the irregular verb arise OALD6 and CALD give only [arose, arisen] and LDOCE4 gives [past tense arose past participle arisen], while COBUILD4 gives [arises, arising, arose, arisen]. With regard to verbs ending with consonant+y such as cry and study, LDOCE4 adopts two different ways, i.e. [past tense and past participle cried, present participle crying, third person singular cries] and [studied, studying, studies], while OALD6 gives [cries, crying, cried, cried] and [studies, studying, studied, studied]. COBUILD4 gives [cries, crying, cried] and [studies, studying, studied], but CALD does not show any conjugations. As to the plural forms of nouns, COBUILD4 cites plural forms for every noun, while the other three dictionaries only cite plural forms for nouns that
have altered spelling in plural forms. However, among the three dictionaries, the method of giving plural forms for nouns ending in a consonant followed by -y is different. For example LDOCE4 cites 'plural academies' for academy, OALD6 gives only (pl. -ies), but CALD gives no information about the plural form of it. As to comparative forms, all the four dictionaries cite comparative and superlative forms for adjectives which have irregular comparison, but for adjectives ending with consonant +y, CALD gives no information. The presentation is different between LDOCE4 and two of the other dictionaries. For example, LDOCE4 cites `comparative prettier, superlative prettiest' while OALD6 and COBUILD4 cite only (prettier, prettiest). CALD does not show any comparison.

Assuming that advanced learners of English know the basic rules for conjugation or comparison and therefore do not need such information, CALD can be seen to be most suited and COBUILD4 least suited for advanced learners of English. In this regard, LDOCE4 and OALD6 fall in the middle of the other two dictionaries. If LDOCE4 is really intended for advanced learners of English, it can be said that the way in which conjugations and comparisons are shown has some room for further improvement.

2.4. Comparison of graphs

According to "How to use the dictionary", there are three types of graphs in LDOCE4. They are graphs that show (I) the frequency of a word or words, (II) information about "which are the most common words to use in a particular context", and (III) information about "which structures are most commonly used with a word". Type (I) has three subtypes concerning spoken English and written English, or British and American English. They all include further explanations and information under the graphs. Type (II) also has explanations. Type (III) has one variant subtype that shows how common particular words are in British and American English. Of these two, only the subtype has explanations about the charts. LDOCE3 had all three types of graphs as well, and the headwords treated there are as follows:

(I) (A) "Frequencies of the adverb absolutely in spoken and written English": absolutely, actually, anything, anyway, bad, bet, better, bit, can, certainly, come, dear, do, else, exactly, fair, forget, funny, good, happen, here, hope, how, let, like, look, matter, mean, mind (v), minute, now, okay, pardon, point, quite, really, right, say, see, so, something, sorry, sort, suppose, sure, tell, that, thing, think, trouble, want, watch, well, what, whatever, why, wrong.

(B) "Frequency of alone, on your/her own and by yourself in spoken and written English": alone, approximately, attend, bear, buy, commence, enter, error, examine, forbid, indicate, just, keep, know, little, location, obliged, opposed, permit, prepare, present, receive, remain, require, return, search, take, talk, telephone.

(C) "Frequency of the nouns rubbish, garbage and trash in British and American English": rubbish, shop.

(II) "This graph shows some of the words most commonly used with the noun advice": advice, cost, crime, damage, decision, description, disease, drug, example, guilty, idea, information, interest, job, memory, money, news, order, pain, price, remember, risk, standard, temperature, test, war.

(III) (A) "This graph shows how common different grammar patterns of the adjective afraid are": afraid, agree, angry, begin, certain, choose, continue, decide, disagree, expect, finish, glad, happy, hate, imagine, learn, need, notice, pay, pretend, start, stop, try, understand, wait.

(B) "This graph shows how common the nouns flat and apartment are in British and American English": flat, holiday, ill, pavement, sweet, trousers.

As is shown in the above-cited captions, several related words are compared in (I) (B), (I) (C), and (III) (B). Out of 146 headwords treated in the graphs in LDOCE3, the headwords treated in LDOCE4 amount to only 50 (i.e. the bold-faced words), and they are treated in the same or almost the same way as in LDOCE3. One noticeable difference and innovation in the treatment of graphs can be seen in (II), where all headwords except information have not been treated in graphs but in collocation boxes in LDOCE4. Further differences in the treatment of the
words in bold face are as follows: Explanations given under the chart concerning commence, just, location, and prepare have been simplified somewhat and those of little, present, receive, remain, and require have been reduced to a sentence-long explanation. Explanations about let, mean, pardon, point, really, sorry, sort in LDOCE3 have been deleted in LDOCE4. The written explanation "Based on the British National Corpus and the Longman Lancaster Corpus" under the graph has been omitted in LDOCE4. As a whole, it seems that graphs which did not provide enough useful information for the space required have been omitted, which can be regarded as an improvement. (Y. Ichikawa)

3. Pronunciation

3.1. Pronunciation in the printed edition

3.1.1. As shown in Table 2, the scheme for transcribing pronunciation in LDOCE4 is almost the same as in the previous edition, and therefore we do not need to make further reference to it here. However, it should be noted that the shortcomings of the scheme we pointed out before remain unchanged in this edition. The reader is referred to our reviews of the previous editions (Shimizu et al. 1990: 42, Urata et al. 1999: 73) for the introduction of either /ə:/ or /a:/ for the vowel of nurse and /a:/ for the second vowel of teacher in American pronunciation, as well as assignment of stress marks to idioms and phrasal verbs.

3.1.2. A dollar sign, $, instead of the two vertical parallel lines || used in the previous editions, is placed between British and American pronunciations when they are different. We welcome this change because the dollar sign, strongly associated with the United States, will make it easier for the user to expect American pronunciation after the sign.

3.1.3. Stress patterns of compounds, which used to be indicated on the dots representing syllables (e.g. case study /'kei.stʌdi:/), are indicated in this edition by placing stress marks directly on the entry items (e.g. 'case study). In this way, stress patterns are more clearly shown than in the previous editions, and what is more, much space has been saved. With some of the compounds containing elements whose typical British and American stress patterns are different, such as cigarette holder (/ˈkaɪ.ə.tər/ and ballet dancer (/ˈbæ.lət.dər/ in LDOCE3) and
pattern typical of British English is shown directly on the entry words and the other pattern, typical of American English, is shown between the slant lines with a dollar sign in front of it (cigarette-holder/£ and ballet-dancer/$) in LDOCE4. However, only one stress pattern is usually shown with each compound, even if two patterns used to be assigned to it in LDOCE3, as in the case of direct speech (/′,′′../) in LDOCE3).

3.1.4. Treatment of stress shift in ordinary (or one-word) entries in LDOCE4 is the same as in the previous editions. However, stress shift in compounds, which used to be marked in the previous editions, is no longer marked because of the change in the method for showing stress patterns cited above: tongue-in-cheek and chrome yellow in this edition used to be transcribed as /′⊥/, and /′⊥/ respectively, with a mark to indicate stress shift.

3.1.5. There seems to be little revision concerning pronunciations given to individual entry items. The treatment of words with uncertain pronunciation (LPD 2: xii) remains much the same as before, though there have been some changes with a few of them, such as garage (/′gæridʒ, -ridʒ || gə′raːdʒ/) → /′gæridʒ, -raːdʒ $ ga′raːdʒ/), and cigarette (/′siga′ret || sɪgə′ret, 'sɪgə′ret/ → /sɪgə′ret $ sɪgə′ret, sɪgə′ret/), reflecting the current tendencies.9

3.2. Pronunciation in the CD-ROM edition

3.2.1. The CD-ROM has pronunciations in British and American English for every entry that has phonetic transcriptions accompanying it. It will be a great help to learners of English, especially to those who do not have much chance to listen to the pronunciation of native speakers of English. They can listen to the actual English sounds, and by associating the sounds with the phonetic symbols they will also learn the values of the symbols.

3.2.2. The transcriptions are exactly the same as those given in the printed edition. The recorded pronunciations for the most part correspond to the transcriptions, but regrettably, we have found cases of discrepancy between transcriptions and recorded sounds through a brief survey of words with uncertain pronunciation. The most outstanding cases have been those of poor and sure: instead of pronouncing /pər/ and /ʃuːr/ as indicated in the transcriptions, the British reader clearly pronounces them as /pəu/ and /ʃuə/.10 Even though /pəu/ and /ʃuə/ are still quite acceptable in British English, such recordings can be very misleading, since the average user, hearing /pəu/ and /ʃuə/ for the words transcribed as /pər/ and /ʃuːr/, may misinterpret the value of /əː/ as [uə].

A few more cases of discrepancy are shown below:

- garage
  - transcription: /′gæridʒ, -ridʒ || gə′raːdʒ/11
  - recorded pronunciation: /′gæridʒ $ gə′raːdʒ/

- premature
  - transcription: /′prematʃo, -ʃuə, ,prema′ʃuə $ ,priːma′ʃuə/
  - recorded pronunciation: /′prema′ʃuə $ priːma′ʃuə/

- cigarette
  - transcription: /′siga′ret || sɪgə′ret, 'sɪgə′ret/12
  - recorded pronunciation: /sɪgə′ret $ sɪgə′ret/

- abdomen
  - transcription: /′æbdəmən, æb′dəu- $ -′dou-/
  - recorded pronunciation: /′æbdəmən $ æb′dəu/

- finance
  - transcription: /fænəns, fə′nəns $ fənəns, 'fænəns/12
  - recorded pronunciation: /fənəns $ fənəns/

- sonorous
  - transcription: /ˈsonərəs, ˈsɔnərəs $ ˌsɔnərəs, ˈsonərəs/
  - recorded pronunciation: /ˈsonərəs, ˈsɔnərəs/

- illustrative
  - transcription: /ˈɪləstretɪv, -strət- $ ′ɪləstretɪv/
  - recorded pronunciation: /′ɪləstretɪv $ ′ɪləstretɪv/

In the cases just shown above, the recorded variants are not given the first place in the transcription. Though no reference is made in the front matter of the printed edition to the choice of variants in the recording, it seems quite natural that the user should expect to hear the first variants in...
the transcriptions when he/she listens to the pronunciations on the CD-ROM. Therefore, the user will be confused if the recorded pronunciations do not correspond to the first variants in the transcriptions.

3.2.3. With compounds, discrepancies seem to occur more frequently than with ordinary (one-word) entry items: 'Advent, calendar', for example, is pronounced as Advent calendar by both British and American readers.

A few more cases of discrepancy are shown below:

'acid jazz' ➔ acid 'jazz' (Brit. & Am.)
'advanced level' ➔ advanced 'level' (Brit.), advanced 'level' (Am.)
'adult education' ➔ adult edu'cation (Brit. & Am.)

Correspondence between transcription and pronunciation is indispensable with this kind of entry because it is very difficult for the average user to interpret the stress patterns merely from the stress marks assigned to the entry words. Considering that suprasegmentals are more difficult to control than segmentals, well-trained readers are desirable for the recording.

3.2.4. Such discrepancies seem to be caused by one of the following factors:

(a) The variant recommended by the lexicographer is not typical of the accent in question.
(b) The variant pronounced by the reader is not typical of the accent in question.
(c) The pronunciation fluctuates between the two variants without much difference in preferences.
(d) The recommended variant is transcribed incorrectly.

Whatever the reason, discrepancies in a learner's dictionary of this type should be avoided by all means.

3.2.5. The user can record his/her own pronunciation on the CD-ROM and compare it to the model pronunciations. This function will at least make studying English more lively, and perhaps it will be of some help for improving the user's pronunciation.

3.2.6. The CD-ROM edition offers a function for finding words by pronunciation. This function will be treated in details in 11.2.5., but we would like to make some points clear from a phonological point of view.

First, the symbols representing vowels are phonologically inconsistent: under the category of "DIPHTHONGS" there are 11 keys, labelled (ei), (ai), (ao), (ou), (au), (ia), (ea), (o)*, (ua), and (ia) (parentheses and asterisks by the writer). In the group named 'Short vowels' there are 9 keys, labelled (i), (e), (ae), (o), (a), (u)**, (i), and (u). We should note that there are two (u)'s, one as a short vowel and the other as a diphthong, and that the diphthong group lacks (ua). Strangely enough, the pop-up explanation for this (u)* as a diphthong says "as in sure", while the pop-up for the other (u)** as a short vowel says "as in put". What should be done is to replace (u)* with (oa), set the pop-up explanation for (oa) so that it says "as in cure" or something, and go through the necessary procedure to fix the program to make (oa) represent the right sound.

Secondly, this system requires too much phonetic knowledge of the user: if he/she wants to find hear, for example, it is necessary to press either (h) (ia) or (h) (i) (a). By pressing (h) (ia) or (h) (i) (a), the user cannot get any results. The same thing will occur with tour: only by pressing (t) (ua) or (t) (u) (a) can the user get to tour. However, it is very unlikely that a learner who knows the distinctions between /i/ and /i/ or /u/ and /u/ well enough to choose the right keys would consult the CD-ROM to find words which he/she is not sure how to spell.

If this scheme is intended to let the user learn the correct symbols through trial and error, the keys ought to be in strict accordance with the phonology of English. If the purpose of this scheme is to help the user find words as easily as possible, it ought to be more flexible and allow more room for accessing with wrong but similar symbols.

3.2.7. It is regrettable that the 7,000 encyclopedic entries, which is one of the features of the CD-ROM edition, are not given pronunciations in any
form. Since this kind of entry often contains proper names, it is difficult to ascertain the pronunciations only from the spellings. We would hope that pronunciations of encyclopedic words, both transcribed and recorded, will be included in the CD-ROM of the next edition. (A. Shimizu)

4. Definition

4.1. Overview

In this section, we will discuss the definitions in LDOCE4, comparing the entries in our sample with those in the corresponding sections of LDOCE3. Similar to Masuda et al. (1999: 27), we also believe that "definitions in learners' dictionaries should differ from those of the conventional monolingual dictionaries in several ways." As regards definitions, Hanks (1987: 116) warns against the pervasion of parentheses and other conventions followed in foreign learner's dictionaries, which is common in traditional dictionaries: "Modern dictionaries are full of such conventions, which make them particularly difficult reading for ordinary readers, especially foreign readers. The purpose, in general, of these conventions is to achieve precision. However, in practice their effect may be merely to create difficulties of interpretation with little or no compensatory gain in accuracy of explanation."

It was nearly two decades ago, in the same year as the publication of LDOCE2, that this warning was conveyed. One might naturally assume that the dictionary has extensively improved in this respect having undergone two revisions since then. The primary task that confronts us is to determine whether the definitions in LDOCE4 are genuinely user-friendly, and whether the changes made in the definition are favorable for the learners. Some of the arguments presented in this section will be supported by the results of our user research reported in Section 12.

4.2. Data analysis

A comparison of our samples from both editions reveals that definitions in LDOCE4 have been modified in a number of aspects and with varying degrees. 809 senses remain unchanged, and 709 senses in LDOCE3 have been reduced into 694 senses in LDOCE4 through modification, unifica-

4.2.1. Definitions of technical terms, regardless of whether they have been labeled as such, tend to be identical:

- **accelerando** adj, adv  getting gradually faster
- **accessory** n 3 someone who helps a criminal, especially by helping them hide from the police
- **egress** n  formal or law the act of leaving a building or place, or the right to do this
- **share index** n technical an official and public list of SHARE prices

Under the entry for **accelerando** and **accessory**, the subject labels (music and law, respectively) are present in LDOCE3 but absent in LDOCE4.

4.2.2. Modifications in definitions range from a close paraphrase to a complete rephrasing. The former is exemplified by the following entries:

- **abyss** n
  
  [LDOCE3] 3 a great difference which separates two people or groups
  [LDOCE4] 3 a very big difference that separates two people or groups

- **accommodate** v
  
  [LDOCE3] 2 to give someone a place to stay, live, or work
  [LDOCE4] 2 to provide someone with a place to stay, live, or work

However, in other cases, the same senses are explained in rather different words:

- **shadow** n
  
  [LDOCE3] 4 without/beyond a shadow of a doubt without any doubt at all 6 be a shadow of your former self to be so unhappy that you seem like a different person
  [LDOCE4] 4 without/beyond a shadow of a doubt used to say that something is definitely true 6 be a shadow of your former self
**self** to be weaker, less powerful, or worse than you were before

**accede** v  
[LDOCE3] 2 to achieve a position of power or authority  
[LDOCE4] 2 if someone accedes to the THRONE, they become king or queen

Welcome innovations are the addition of extra information typically in a phrase or clause introduced by *especially* or *used (to show)*, and the substitution of redundant information by useful information (as in the case of **abuse**):

**sever** v  
[LDOCE3] 2 to end a relationship with someone, or a connection with something  
[LDOCE4] 2 to end a relationship with someone, or a connection with something, especially because of a disagreement

**shackle** n  
[LDOCE3] 2 one of a pair of metal rings joined by a chain that are used for fastening together a prisoner’s hands or feet  
[LDOCE4] 2 one of a pair of metal rings joined by a chain that are used for fastening together a prisoner’s hands or feet, so that they cannot move easily or escape

**abuse** n  
[LDOCE3] 3 cruel or violent treatment, often involving forced sexual activity, of someone that you are responsible for or should look after: child abuse | sexual abuse  
[LDOCE4] 1 cruel or violent treatment of someone: several cases of child abuse | physical/sexual/racial abuse Many children suffer racial abuse at school. | An independent committee will look into alleged human rights abuses.

**shaking** adj  
[LDOCE3] formal or humorous making you feel interested in intelligent or moral subjects  
[LDOCE4] formal making you feel interested in intelligent or moral subjects — sometimes used humorously

**abreast** adv  
[LDOCE3, with an illustration] 1 walk/ride etc abreast to walk, ride etc next to each other  
[LDOCE4, without an illustration] 2 walk/ride etc abreast to walk, ride etc next to each other, all facing the same way

4.2.3. Some definitions have been simplified for better understanding. Apart from avoiding difficult words (as in the case of **shamble**) and the use of the word being defined (**sever**, **shape**), the standard ways of achieving simplicity are to avoid complex grammatical structures (**shamble**, **abstruse**), to reword a phrase including a polysemous word in one of its subsidiary senses into a plain phrase (**right angle** into **angle of 90° s.v. setsquare**), and to make the definition compact (**share**, **shatterproof**).
sever v
[LDOCE3] 1 to cut through something, separating it into two parts, or to become severed in this way
[LDOCE4] 1 to cut through something completely, separating it into two parts, or to become cut in this way

shape n
[LDOCE3] 1 a) the outer form of something, that you see or feel b) a particular shape, or thing that is that shape
[LDOCE4] 1 the form that something has, for example round, square, triangular etc

abstruse adj
[LDOCE3] difficult to understand in a way that seems unnecessarily complicated
[LDOCE4] unnecessarily complicated and difficult to understand

setsquare n
[LDOCE3] a flat piece of plastic or metal with three sides and one right angle, used for drawing or testing angles; triangle (4)
[LDOCE4] a flat piece of plastic or metal with three sides and one angle of 90°, used for drawing or testing angles; = triangle AmE

share v
[LDOCE3] 1 to have or use something that other people also have or use at the same time
[LDOCE4] 1 to have or use something with other people

shatterproof adj
[LDOCE3] glass that is shatterproof is specially designed . . .
[LDOCE4] shatterproof glass is specially designed . . .

Some words have been made more accurate in LDOCE4 by including a distinctive feature in their definition that is missing in LDOCE3:

elf n
[LDOCE3] an imaginary creature like a small person with pointed ears
[LDOCE4] an imaginary creature like a small person with pointed ears and magical powers

Senses 1, 2 a), and 3 b) of a are explained from a grammatical point of view in LDOCE3, whereas in senses 1, 2, 5 in LDOCE4 the user's attention is drawn to what they can express by the word rather than its function, although the use of grammatical terms is not avoidable in all cases.

a
[LDOCE3] strong indefinite article, determiner 1 used before a noun that names something or someone that has not been mentioned before, or that the person you are talking to does not know about 2 a) used before a noun that is one of a particular group or class of people or things 3 b) a lot/a few/a little/a great deal etc used before certain words that express an amount of something 7 b) used before the -ing form of verbs when they are used as nouns e) used before an uncountable noun when other information about the noun is added by an adjective or phrase 8 used before an uncountable noun to mean a type of it 9 used before the name of a painter or artist etc meaning a particular painting, sculpture etc by that person
[LDOCE4] indefinite article, determiner 1 used to show that you are talking about someone or something that has not been mentioned before, or that your listener does not know about 2 used to show that you are referring to a general type of person or thing and not a specific person or thing 5 used in some phrases that say how much of something there is 7 used before singular nouns to mean all things of a particular type 9 used before the -ing forms of verbs when they are used as nouns referring to an action, event, or sound 10 used before nouns that are usually uncountable when other information about the quality, feeling etc is added by an adjective, phrase, or clause 13 used before the name of a famous artist to refer to a painting by that artist

There are some instances in which the pronoun you has been replaced by someone or by a concrete word so as not to offend or perplex the users:

set-up n
[LDOCE3] 3 a dishonest plan that tricks you
[LDOCE4] 2 a dishonest plan that is intended to trick someone

masochism n
[LDOCE3] 2 sexual behaviour in which you gain pleasure from being hurt
[LDOCE4] 1 sexual behaviour in which someone gains pleasure from being hurt or punished
elective
[LDOCE3] a course that you can choose to study because you are interested in it, while you are studying for a degree in a different subject
[LDOCE4] a course that students can choose to take, but they do not have to take it in order to graduate.

In yet other instances, a passive verb phrase has been modified into an active one:

seventy-eight
[LDOCE3] an old-fashioned record that is played by being turned 78 times a minute
[LDOCE4] an old-fashioned record that plays while turning around 78 times a minute

However, in the following example, users of either of these editions are unable to avoid both of these complexities:

sex object
[LDOCE3] someone you consider only as a means of satisfying your sexual desire rather than as a whole person
[LDOCE4] someone who is thought about only as a way of satisfying another person’s sexual desire, rather than as a whole person

Modifications from connected with to relating to (e.g. aboriginal adj, electoral, marital, maritime), those from kind to type (e.g. market n 5, market leader), and those from the relative pronoun which to that (e.g. abyss above, account n, marketplace) are found frequently, but they are not consistent throughout. Nor is the deletion of “a relative pronoun preceded by a preposition,” a combination severely criticized by the participants in our user research, as it constitutes a noticeable decrease in the comprehensibility of the definition (see 12.9).

4.2.4. Deleted definitions are typically those labeled as old-fashioned, literary, informal, or slang, and those that are senses of a headword in LDOCE3 but the senses are treated as collocations without a definition in LDOCE4, not to mention senses whose headwords have been eliminated from the new edition.

American usages (e.g. “Shaker a member of a US religious group . . .” s.v. shaker n 3) and computer-related definitions (e.g. “the Web the system on the Internet that allows you to find and use information . . .” s.v. web n 1) are new additions. Senses that are treated as collocations or run-on derivatives without a definition in LDOCE3 and senses whose headwords are new in LDOCE4 have also been added. Some senses in American English have been repositioned higher in the order within an entry that is arranged in the order of frequency. Several of these are not labeled as AmE in LDOCE4, which suggests that the usage is not restricted to American English any more.

shake
[LDOCE3] 5 AmE a cold drink made from milk that tastes of fruit, chocolate etc; MILK SHAKE
[LDOCE4] 2 a cold drink made from milk, ICE CREAM, and fruit or chocolate; = milkshake

sharp
[LDOCE3] 22 sb looks sharp AmE if someone looks sharp, they are dressed well and attractively; SMART (2) especially BrE
[LDOCE4] 12 CLOTHES attractive and fashionable; = smart BrE

The same trend is observed with regard to computer-related definitions:

net
[LDOCE3] 6 the Net technical the Internet; a system that allows millions of computer users around the world to exchange information
[LDOCE4] 1 INTERNET the Net also the net the system that allows millions of computer users around the world to exchange information

Synonyms are frequently provided as in other monolingual dictionaries, but they are preceded by an equal sign in LDOCE4. In addition, antonyms are occasionally provided following a “not equal” sign:

above
[LDOCE4] 1 in a higher position than something else; = over; ≠
4.3. Definitions beginning with *when*

Although most changes in the new edition have occurred within the framework of traditional defining policies with the sole exception of the sentence definition, what appears to be a deviation from the norm has also set in: definitions beginning with the word *when*. Abstract nouns including compounds are typically defined in this manner:

**conversion n**
[LDOCE3] 1 the act of process of changing something from one form, purpose, or system to a different one
[LDOCE4] 1 when you change something from one form, purpose, or system to a different one

**unity n**
[LDOCE3] 1 a situation in which a group of people or countries work together for a particular purpose
[LDOCE4] 1 when a group of people or countries agree or are joined together

**power politics n**
[LDOCE3] the use or threat of armed force in international politics
[LDOCE4] when a country or person attempts to get power and influence by using or threatening to use force or other actions, especially against another country

Despite its recent appearance in learner's dictionaries, the "when" definition dates back to Cawdrey's *Table Alphabeticall* (1604), according to Higashi and Urata (2005: 8-9). They highlight issues such as the lack of consistency within a dictionary as regards whether or not to adopt this method of definition, its syntactic unstableness as a definition, and the scarcity of dictionaries that explains this usage of *when*, least of all as an introducer of a definition. Heuberger (2000: 17-18) also expresses an objection to this type of a definition, insisting on the importance of substitutable definitions. In practice, however, not many users appear to be concerned about these issues to the extent that lexicographers fear, as the results of our user research reveal (see 12.8. and 12.9.).

4.4. Signposts

The signpost enables the users to quickly locate a particular sense of polysemous words. Since its introduction in the previous edition, the signpost has been extensively and eagerly welcomed by users. One of Bogaards' (1998: 560) findings in the course of his experimental study is that LDOCE3 and CIDEC, “which both have access structures which are based on semantic principles, give the best results: students find the information they are looking for more often and they need less time to find it” as compared to COBUILD2 and OALD5, primarily due to their signposts. Urata *et al.* (1999: 78) criticizes its lack of conspicuity in LDOCE3, but it is highlighted in blue in LDOCE4. For classification and other details of the signpost (and the "menu," which has been deleted from LDOCE4), see Urata *et al.* (1999: 78-79).

Signposts in LDOCE4 have not only been modified along with the changes in the definitions, but have also been made more user-friendly in the following three aspects:

1. Some use simpler words, just as in the case of definitions (e.g. USE TOGETHER in LDOCE4 rather than ► USE EQUALLY in LDOCE3 s.v. share⁵ v), but occasionally at the cost of precision.
2. Some provide concrete examples of the definiendum (e.g. ROUND/SQUARE ETC rather than ► OUTER FORM s.v. shape⁵ n).
3. Some include additional information (e.g. ► ABLE TO CUT EASILY rather than ► ABLE TO CUT s.v. sharp⁴ adj).

4.5. Defining vocabulary

In LDOCE4, as in its preceding editions, approximately 2,000 words have been carefully chosen as its defining vocabulary. The publisher, in its introductory remarks to the Longman Defining Vocabulary (p. 1943), states that they are attempting to ensure that these words are both "frequent in the Longman Corpus Network" and "used correctly by learners in the Longman Learner's Corpus." To that end, part of the vocabulary has been altered. 24 words have been deleted, including ordinal numerals and words that can be disposed of if common synonyms or superordinates are provided. On the other hand, 39 words have been
newly added, including names of food and culinary terms (sandwich n, sauce, spice n, spicy, tomato), technological terms, particularly those related to computers (email, software, spacecraft, technology, video n, website), names of sports (baseball, golf), and other words fairly common in everyday conversation (boyfriend, chew, girlfriend, jacket, salary, score v, n, teenage). The addition of computer-related terms reminds us that the technological development is reflected in the two corpora. The words a and etc appear in the list in LDOCE4, which are not included in the list in LDOCE3 even though they are used in the definitions.

Unfortunately, however, the list in LDOCE4 has a few drawbacks, the most serious of which is the lack of the list of prefixes and suffixes. The publisher has stated that it will be placed at the end of the Defining Vocabulary list (p. 1943) but that is not the case. There are a few typological errors as regards parts of speech (length adv, pron, determiner; probably adj, and wide adj, conj), the first two of which also appear in LDOCE3 and remain uncorrected in the new edition. The introductory matter (p. 1943) explains that proper names are not included in the list. The absence of ordinal numerals (from fourth to tenth, if not 11th and 12th) from the list should also be mentioned, as they are used in the definitions of the months, some events in the calendar and in other instances. Improvement in these areas in the next revision is desirable, no matter how few users are reported to read the front and back matters. (T. Kanazashi)

5. Examples

5.1. An extensive revision of the examples

Next we will examine the examples in LDOCE4. The “Introduction” to the dictionary states that the number of examples has increased by 40%, and that all the examples are from the Longman Corpus Network, usually with slight modifications (p. x).

Our sample contains 1,300 examples from LDOCE3 and 1,855 from LDOCE4, which indicates an increase of 43%. A closer inspection of the sample reveals the following: 504 examples are common to both editions; 24 have been deleted along with the headword, the definition, or the usage note; 35 have been newly added with newly included words; 63 with newly added definitions; 5 in the “warning notes”; 21 in the “collocation boxes;” 11 in the “Word Choice boxes;” 7 in the grammar box (excluding the one in the warning note). This implies that approximately three-fifths of the examples in LDOCE3 have been revised or replaced to account for three quarters of the examples in LDOCE4, eclipsing the effects of the deletion or addition of notes or boxes. Masuda et al. (2003: 32) compare the examples in COBUILD2 and COBUILD3 and estimate the percentage of the total modifications to examples to be approximately 4%, in contrast to our calculation concerning LDOCE at 61%.

In our sample from LDOCE3, we find 344 phrase examples (26%), 914 one-sentence examples (70%), and 42 examples consisting of two or more sentences (3%), of which 8 are dialogues between two persons, whereas our sample from LDOCE4 consists of 459 phrase examples (25%), 1,360 one-sentence examples (73%), and 36 multi-sentence examples (2%), of which 16 are dialogues. This indicates a moderate increase of sentence examples and dialogue examples, which seems to make LDOCE4 a slightly more useful tool for improving the users' communicative skills.

5.2. Types of modifications

The examples have not only been modified in number, but in various ways. The writers' effort to cope with problems peculiar to the examples, such as the ones posed by Masuda et al. (1997: 48-53), can be found on nearly every page, although it is difficult to identify if the modifications have not been carried out merely on the basis of frequency.

Among several arguments that Masuda et al. (ibid.) state regarding the issues with the examples in COBUILD2, “difficult words” and “unclear contexts” seem to have been of particular concern to the Longman lexicographers, as the following examples indicate. First, there are some examples in which a difficult word has turned into a simpler one with a change in the meaning.

**abscond v**

[LDOCE3] 1 Several boys have absconded from the detention centre.
[LDOCE4] 1 The boy absconded from a children's home.
Apparently the dictionary aims at the elimination of long examples and complex grammatical structures so as not to distract the users’ attention from the headword. Proper nouns utilized only in a specific field are also avoided in case a user is unfamiliar with the field.

**elapse** v

[LDOCE3] Several months were to elapse before . . .
[LDOCE4] Several months elapsed before . . .

**accelerate** v

[LDOCE3] The Ferrari Mondial can accelerate from 0 to 60 mph in 6.3 seconds.

**accompaniment** n

[LDOCE3] She starts by singing 'Amazing Grace' with a simple guitar accompaniment.
[LDOCE4] He plays folk music with guitar accompaniment.

However, the shortening of the examples and elimination of difficult words have sometimes been achieved at the expense of other merits: more detailed information under **shadow**², and informality under **shake**¹.

**shadow**² v

[LDOCE3] Detectives shadowed them for weeks, collecting evidence.

**shake**¹ v

[LDOCE3] 12 shake in your shoes/boots informal . . . I was shaking in my shoes — I thought he’d give me the sack.
[LDOCE4] 2 . . . be shaking in your shoes/boots . . . I was shaking in my shoes — I thought he was going to fire me.

Urata *et al.* (1999: 81-82) highly evaluate LDOCE3’s “fuller treatment of the figurative use of some words” than LDOCE2, but LDOCE4 provides an even fuller treatment to it than LDOCE3.

---

**set**³ adj

[LDOCE3] 5 The government’s dead set against the plan.
[LDOCE4] 5 The government’s dead set (= completely determined) against the plan.

**ego** n

[LDOCE3] 1 The promotion was a real boost for her ego.
[LDOCE4] 1 That promotion really boosted her ego (= made her feel better about herself).

**em-** prefix

[LDOCE3] an embittered man (= made bitter)
[LDOCE4] embittered (= made to feel extremely disappointed)

**corner**¹ n

[LDOCE3] 5 force sb into a corner The president is likely to be forced into a corner over his latest plans for welfare spending.
[LDOCE4] 5 back/box/force/push sb into a corner (= put someone into a situation where they do not have any choices about what to do) Don’t let your enemies back you into a corner.

Not only does LDOCE4 provide this type of information in parentheses in the examples, which is a feature already observed in LDOCE3, but it also explains in what context an example is likely to be conveyed.

**about**² adv

[LDOCE3] 7 He quickly turned about.
[LDOCE4] 7 He quickly turned about and walked away.

**element** n

[LDOCE3] 5 battling against the elements
[LDOCE4] 5 sailors battling against the elements

**mark**¹ v

[LDOCE3] 2 He had marked the route in red.
[LDOCE4] 2 He had marked the route on the map in red.

**settle in/into** phr v

[LDOCE3] 1 Are you settling in OK?
[LDOCE4] How’s your new home? Are you settling in OK?

**shade** n

[LDOCE3] 8 shades of Huh. Shades of my poorer days.
[LDOCE4] 8 shades of sb/sth The food was horrible, (shades of school dinners).

Merely providing an appropriate collocate may render the entire example more concrete and realistic or clarify the context.
absent-minded  adj  
[LDOCE3] She’s getting very absent-minded.

absorbent  adj  
[LDOCE3] absorbent material
[LDOCE4] absorbent kitchen paper

As is observed from the entries for set¹ and ego above, important collocations are highlighted in bold, which is definitely a welcome change.

5.3. New examples and deleted examples

An academically oriented user might regret that the number of encyclopedic, academic, or literary examples has decreased in LDOCE4.¹⁷ The following are deleted examples, although the definition remains virtually the same.

*Ants eject formic acid when another insect tries to attack them. (s.v. eject v)*  
*Language usage is too elastic to be described using just a few simple rules. (s.v. elastic¹ adj)*  
*Rhyme is just one of the elements of his poetry. (s.v. element n)*

The new edition has a fair share of new examples relating to the current affairs. Finally, let us have a look at a few of them, even though the last three describe the darker side of modern life.

*Users can access their voice mail remotely. (s.v. access¹ v)*
*You can elect to delete the message or save it. (s.v. elect¹ v)*
*Most West European countries have embraced the concept of high-speed rail networks with enthusiasm. (s.v. embrace¹ v)*
*Their purpose is to elevate AIDS to the top of government priorities. (s.v. elevate v)*
*The events of September 11th cast a shadow over the celebrations. (s.v. shadow¹ n)*
*420 workers have been ejected from their jobs with no warning. (s.v. eject v)*

(T. Kanazashi)

6. Language Notes

We will compare the Language Notes in LDOCE4 with those in LDOCE2 in this section. A comparison between the Language Notes in LDOCE4 and those in LDOCE3 is not possible, since LDOCE3 does not have Language Notes. We made an inquiry to an editorial staff of LDOCE3 on the reason for the omission of Language Notes in LDOCE3. We were told that the reason why Language Notes were left out in LDOCE3 was to make more space for other newly introduced features such as frequency charts, signposts for long entries, full-page color illustrations, and so on. We were also told that the information in the Language Notes in LDOCE2 was not transferred to LDOCE3.¹⁸

6.1. Structural features

There are 16 pages of Language Notes in LDOCE4. Each Language Note is about one or two pages long. Language Notes in LDOCE2 are arranged in alphabetical order throughout the dictionary, but those in LDOCE4 are not in alphabetical order and are all placed in the middle of the dictionary as a middle matter. The outer edge of the pages in the Language Note section is colored in blue so that the section stands out in the dictionary especially when the dictionary is closed. Owing to this device a user can find the section instantly.

The following eight topics are explained in the Language Notes of LDOCE4: Articles, Modal verbs, Phrasal verbs, Idioms, Writing, Linking ideas, Pragmatics and Collocation. In contrast, LDOCE2 has Language Notes for 20 topics. More than half of the topics that are explained in LDOCE2 are not taken up as topics in LDOCE4.

Each Language Note starts with a definition of the topic in question followed by some examples. The explanation and examples in LDOCE4 are all different from those in LDOCE2 even when the topics are the same in both LDOCE2 and LDOCE4.

It should be noted that the use of grammatical terms is avoided as much as possible in the Language Notes of LDOCE4. Recent EFL dictionaries tend not to use grammatical terms whenever possible for the benefit of users who are not familiar with technical terms in grammar. LDOCE4's avoidance of using grammatical terms could be considered as a principle adopted in accordance with this trend.
It is also noteworthy that the explanatory statements attached to example sentences are often written as if addressed to the users of the dictionary and start with the subject You. It can be considered as a device to make the explanatory sentences easier for the users to understand. This style became prevalent when COBUILD adopted it for the first time in the definition of its entry words.

Another apparent difference between Language Notes in LDOCE4 and those in LDOCE2 is that the Language Notes in LDOCE4 are printed in color. Topics to be explained are printed in black bold capital letters on a blue band placed at the top of each page. Signposts are printed in white lettering on a dark purple rectangular background in a margin on the left-hand side of each page. Examples are printed in black on a light purple background. Check marks and crosses that are used to mark correct and incorrect examples respectively are printed in dark pink. Points to be noted are shown with a white exclamation mark printed in a dark pink circle. Arrows are also printed in pink. As a result, Language Notes in LDOCE4 have more visual impact than those in LDOCE2 owing to its use of color and page layout.

### 6.2. Topics in LDOCE2 and LDOCE4

The following table 3 compares the topics of the Language Notes in LDOCE2 with those in LDOCE4.

<table>
<thead>
<tr>
<th>LDOCE2</th>
<th>LDOCE4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressing people</td>
<td>Apologizing</td>
</tr>
<tr>
<td>Apologies</td>
<td>Articles</td>
</tr>
<tr>
<td>Articles</td>
<td>Collocations</td>
</tr>
<tr>
<td>Collocations</td>
<td>Criticism and praise</td>
</tr>
<tr>
<td>Criticism and praise</td>
<td>Graded and non-gradable adjectives</td>
</tr>
<tr>
<td>Idioms</td>
<td>Intensifying adjectives</td>
</tr>
<tr>
<td>Intensifying adjectives</td>
<td>Invitations and offers</td>
</tr>
<tr>
<td>Invitations and offers</td>
<td>Inviting someone</td>
</tr>
<tr>
<td>Make and do</td>
<td>Linking Ideas</td>
</tr>
<tr>
<td>Make and do</td>
<td></td>
</tr>
<tr>
<td>Modals</td>
<td>Modal verbs</td>
</tr>
<tr>
<td>Modal verbs</td>
<td>Phrasal verbs</td>
</tr>
<tr>
<td>Politeness</td>
<td>Feelings and attitudes</td>
</tr>
<tr>
<td>Politeness</td>
<td></td>
</tr>
<tr>
<td>Prepositions</td>
<td>Pragmatics</td>
</tr>
<tr>
<td>Questions</td>
<td></td>
</tr>
<tr>
<td>Requests</td>
<td>Asking someone to do something</td>
</tr>
<tr>
<td>Synonyms</td>
<td></td>
</tr>
<tr>
<td>Tentativeness</td>
<td></td>
</tr>
<tr>
<td>Thanks</td>
<td></td>
</tr>
<tr>
<td>Words followed by prepositions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing</td>
</tr>
</tbody>
</table>

The topics newly introduced in LDOCE4 are the following three: Pragmatics, Writing and Linking ideas. They are shown in bold face in the table. Pragmatics is a Language Note that treats pragmatic topics such as communicative skills in the English language. Writing and Linking ideas could be seen as new types of Language Notes that do not have counterparts in the Language Notes of LDOCE2. They deal with practical skills necessary for writing English effectively. The two Language Notes seem to have been written based on data collected from the Longman Learners' Corpus.

The mark Φ shows the topics in LDOCE2 that are omitted in LDOCE4. They are: Addressing people, Criticism and praise, Graded and non-gradable adjectives, Intensifying adjectives, Make and do, Prepositions, Questions, Synonyms, Tentativeness, Thanks, and Words followed by prepositions.

We can see from this list that grammatical Language Notes are omitted in LDOCE4: Graded and non-gradable adjectives, Intensifying adjectives,
Prepositions, and Synonyms. Matters that are dealt with in the Language Notes titled Make and do and Words followed by prepositions are partly explained in the Language Note for Collocation in LDOCE4. The Language Notes that treat pragmatic topics are also omitted in LDOCE4: Addressing people, Criticism and praise, Questions, Tentativeness, and Thanks. Although they are done away with in LDOCE4, these pragmatic skills differ from culture to culture and information of this kind should be of use for learners of English from different cultural background.

The pragmatic Language Notes that were not omitted are briefly explained in the Language Note titled Pragmatics in LDOCE4. They are shown in italics in the table above: Apologies (Apoloizing in LDOCE4), Invitations and offers (Inviting someone in LDOCE4), Politeness (Feelings and attitudes in LDOCE4) and Requests (Asking someone to do something in LDOCE4). The reason why these topics are chosen to be treated and the other topics are omitted is not clear.

6.3. The content of Language Notes in LDOCE2 and LDOCE4

6.3.1. Articles

The Language Note for articles is a page long in LDOCE4, while it is three pages long in LDOCE2. The reason the Language Note in LDOCE2 takes up more space is that LDOCE2 shows the use of articles thoroughly and systematically using charts so that the users can learn how to match an appropriate article with a given noun in an organized way. Users can understand the basic rules governing the use of articles by looking at the charts and reading the explanations attached to them. LDOCE4 focuses on the points that learners often make mistakes and shows them by listing the incorrect examples adjacent to the correct ones. With the help of its colorful page layout, users can easily grasp the points that they should pay attention to. However, it must be difficult for users to induce the rules that are behind the basic use of articles by just reading the brief explanatory statements and looking at the list of individual examples.

There is a subsection in the Language Note in LDOCE2 which explains how to decipher certain grammatical codes that indicate the use of articles such as [the + S], [the + P] and [the]. This part is omitted in LDOCE4, since LDOCE4 does not use these codes. It either writes out the use of articles explicitly or does not mention it at all. For example, in order to show that the word private sector is used with a definite article, LDOCE4 writes out the phrase the private sector in black bold face next to the entry word instead of using the grammar code [the + S].

6.3.2. Modal verbs

Modal verbs are grouped into eleven concept groups. The groups are shown in white lettering on a dark purple background in the left-hand-side margin of each page. Two to four modal verbs are classified into each concept group. They are listed in a purple-lined square under each concept heading. The explanation for the use of modal verbs in each concept group is succinct; the explanation is usually one sentence or two sentences long.

The concepts that are used to classify the modal verbs are almost the same as the ones used in LDOCE2 although there are sometimes slight changes in naming and grouping. They are: Ability, Certainty, Intention (personal intention and unreality, hypothesis in LDOCE2), Necessity (obligation, requirement in LDOCE2), Offers (willingness, wish in LDOCE2), Permission, Possibility, Prediction (prediction of future events in LDOCE2), Probability, Requests (willingness, wish in LDOCE2), and Suggestions (desirability in LDOCE2).

The Language Note in LDOCE2 provides its users with the information on the grammatical behavior of modal verbs. For example, it explains that modal verbs do not take an “-s” as a suffix in the third person singular. The Language Note in LDOCE4, on the other hand, does away with such grammatical explanations.

6.3.3. Phrasal verbs

The Language Note of Phrasal verbs begins with its definition and a note that phrasal verbs are used quite often in both spoken and written English.

Phrasal verbs are divided into separable and non-separable phrasal verbs. An arrow (⇒) is used to show that a direct object can be inserted
between the verb and the particle in the case of separable phrasal verbs. The use of an arrow is taken from LDOCE2.

LDOCE4 does not use the symbols [T] and [I] to indicate the transitive and intransitive use of phrasal verbs. An expression such as "phrasal verbs which do not have an object" is used instead.

6.3.4. **Idioms**

Both LDOCE2 and LDOCE4 explain that idioms have literal and idiomatic meanings in their Language Notes. Whereas LDOCE2 calls the idiomatic meaning as "a special meaning", LDOCE4 considers the idiomatic meaning as a metaphor:

> Idioms can be seen as metaphors that have become fixed phrases in the language, and are now a usual way of talking about a particular type of situation.

(p. 976)

It may be a recent trend to use the concept of metaphor to explain the fixed meaning of idioms. For example, MED is well-known for setting up Metaphor Boxes to explain the idiomatic meaning of idioms.20

There is also a mention on variable idioms in LDOCE4. They are idioms in which forms are slightly changed by speakers. An example given in LDOCE4 is: **drive me crazy/nuts/mad/up the wall/bananas.** The object of the verb **drive** can change depending on the speaker.

6.3.5. **Writing**

This is one of the new types of Language Notes introduced in LDOCE4. It explains how to write formal and informal letters, emails and curricula vitae or resumes. It shows how to start and end writing them by giving examples in accordance with style. In the back matter of LDOCE4, there is a page which shows a sample of a curriculum vitae (British English version) and a sample of a resume (American English version). The samples must serve as a model when the users of this dictionary attempt to write a curriculum vitae or resume by themselves.

It also lists do's and don'ts of essay writing at the end of the Language Note. For instance, as the first item of the don'ts in essay writing, LDOCE4 suggests: "don't mix different ideas together in the same paragraph or sentence." It seems that this section is written based on the material obtained from the Longman Learners' Corpus.

6.3.6. **Linking ideas**

This is another new type of Language Notes introduced in LDOCE4. It is emphasized in this Language Note that coherence is important in writing essays. The use of adverbs, conjunctions and other sentence connectors are explained and shown with examples under the following seven headings: **Listing ideas in a logical order** (e.g., firstly, secondly, thirdly); **Summarizing your ideas** (e.g., in conclusion, to conclude, to sum up); **Adding another idea that supports the previous one** (e.g., moreover, what is more, besides); **Contrasting different ideas with each other** (e.g., but, however, nevertheless); **Saying what the result of something is** (e.g., so, therefore, as a result); **Saying what the reason for something is** (e.g., because, as, due to); and **Saying what the purpose of something is** (e.g., to, in order to, so that).

This Language Note also seems to be composed based on material obtained from the Longman Learners' Corpus. Since the Longman Learners' Corpus consists of the English learners' essays, it may have been of use to identify the reason why essays written by non-native speakers of English are likely to lack coherence.

6.3.7. **Pragmatics**

This Language Note explains the pragmatic topics in English communication. Expressions that are appropriate to particular situations are suggested under the following seven headings with notes on style: **Feelings and attitudes**; **Advising someone**; **Agreeing and disagreeing**; **Apologizing**; **Asking, giving and refusing permission**; **Asking someone to do something**; and **Inviting someone**. Some of the topics that are explicated in the independent Language Notes in LDOCE2 are explained briefly in small sections in this Language Note. They are: **Apologies** (Apologizing in LDOCE4), **Invitations and offers** (Inviting someone in LDOCE4), **Politeness** (Feelings and attitudes in LDOCE4), and **Requests** (Asking someone to do something in LDOCE4).
Sometimes the same situation may require different expressions in British English and American English. There are several expressions that are labeled as British usage in the Language Note in LDOCE4. The following is an example:

Do you fancy a pizza? (= used in informal British English) (p. 985)

However, not much attention seems to be paid to expressions used in American English. In fact, there are not any expressions that are labeled as American usage in the Language Note in LDOCE4. The dialog below is given as an example in the subsection titled Refusing permission:

Do you mind if I smoke? — I'd rather you didn't. (British English) (p. 985)

What would Americans say to refuse the permission if they were in the same situation? It would be of more use if some consideration was given to the possible differences between the British and American usage.

LDOCE2 labels expressions typically or often used in American English as (AmE) and (esp. AmE) respectively. The following is an example from a small section titled Quick thanks in the Language Note for Thanks (p. 1097). There are five expressions shown as examples of responses to someone thanking. Two out of the five are labeled as used in American English: You're welcome. (esp. AmE); No problem. (AmE infml).

If there is a label that indicates that an expression is typically used in British English, then it would be fair to have a label that indicates that an expression is typically used in American English. The users would then be able to infer that the expressions that are not labeled are neutral and do not have distinct regional differences in their use.

A white exclamation mark in a dark pink circle is used as a mark to warn users that they should pay attention in using certain expressions. For example, the mark is used to introduce a warning against the use of expressions for disagreeing strongly with someone. The following are the suggested expressions and the warning:

I'm so fat. — Nonsense! You're not fat at all.
It's all your fault! — No way! It was nothing to do with me.

The journey shouldn't take more than an hour. — You can't be serious! It's at least two hours.

If you use these expressions with people you do not know well, you will often sound very aggressive and rude. (p. 984)

The heading “Be careful!” is used instead of the mark to give warnings to the users in LDOCE2.

6.3.8. Collocation

The Language Note for collocation starts with a definition of a collocation. Then some examples are given under the following three headings: Verbs that collocate with nouns (e.g., take a bath, have a bath), Adverbs that collocate with adjectives (e.g., highly controversial, deeply offended, bitterly disappointed) and Adjectives that collocate with nouns (e.g., a strong/real/distinct possibility).

Then the explanation of how collocations are presented in the entries follows. The users are also instructed to pay attention to the collocation boxes that list frequent and important collocations in approximately 300 entries. They are also advised to refer to the CD-ROM of the dictionary to get access to an additional 173,000 collocations that are not included in the book.

6.4. In summary

What did the authors intend to convey to the users by the Language Notes in LDOCE4? There is not any explanation on the purpose of the Language Notes in the front matter of the dictionary.

The front matter of LDOCE2 explains that Language Notes are intended to deal with points of grammar, style and especially pragmatics (F49). There is also an article by Professor Geoffrey Leech and Dr. Jenny Thomas which explains how the dictionary treats pragmatic issues. They state in their article that Language Notes are one of the means with which they intend to present “guidelines” of pragmatic usage (F13). They continue that Language Notes cover topics that are more generally pragmatic than the topics covered by Usage Notes. That is, the Language
Notes treat pragmatic topics “which cannot be limited to the treatment of individual words, and which affect the meaning in context, of many different words or phrases (ibid).” We can infer from this article that LDOCE2 put great emphasis on the treatment of pragmatic topics, and this should have led to the installment of Language Notes for 20 topics.

However, we cannot but infer that not much emphasis is put on the treatment of pragmatic topics in LDOCE4. The number of topics covered in Language Notes is reduced to eight, and some of the pragmatic topics that were explicated in independent Language Notes in LDOCE2 are done away with in LDOCE4. The pragmatic topics that are still treated in LDOCE4 are treated only briefly in small sections in the Language Note titled Pragmatics. It is also regrettable that consistent attention is not paid to the regional differences in usage. Therefore, we should say that the pragmatic topics are not fully discussed in LDOCE4.

Detailed grammatical explanations seem to be avoided in LDOCE4. For example, the Language Note on modal verbs is reduced in amount compared to that in LDOCE2, since the section which explains the grammatical behavior of modal verbs is omitted in LDOCE4. The Language Note on articles gives us the impression that it is written based on the data obtained from the error analysis of the material collected for the Longman Learners’ Corpus, and emphasis is placed mainly on the points that students tend to make mistakes. The explanation on grammatical topics seems to be limited to a minimum in LDOCE4, and the users who need further information is referred to other references such as phrasal verb dictionaries and idiom dictionaries.

As to the Language Notes titled Writing and Linking Ideas, they may serve as guidelines when the users are writing English on their own although the explanation is not extensive in either of the Language Notes. Especially the examples and the sample of a curriculum vitae and a resume in the back matter may serve as models that the users can refer to.

The Language Notes in LDOCE4 may be rather superficial to be taken as a guide to pragmatic topics in English. Nor is it sufficient as a guide to grammatical topics. It is not clear what kind of information the authors of the Language Notes intended to convey to the users of the dictionary.

Summary, the Language Notes in LDOCE4 do not seem to be written based on any clear principle, and it is difficult to identify the aim of including the Language Notes as one of its features in LDOCE4 after omitting them in the previous edition.

(R. Takahashi)

7. Grammatical Information

7.1. The types of information

There are three kinds of grammatical information in LDOCE4: Word class, inflections and syntax.

Word class is parts of speech and those that are shown in abbreviated forms are listed on page i of the dictionary. They are adj, adv, n, phr v, prep, pron, and v. The rest of the parts of speech are all spelled out in their full form. They are: article, auxiliary verb, conjunction, determiner, interjection, modal verb, number, prefix, quantifier, and suffix. The word class is exactly the same as that of LDOCE3. Those that are abbreviated are also the same as those in LDOCE3. It seems that the most frequently used ones are abbreviated.

Inflected forms of verbs, nouns and adjectives are shown immediately after the part-of-speech label. The past tense form and past participle forms of irregular verbs are fully spelled out in bold face after the labels past tense and past participle respectively. For example, in case of the verb come, the past tense form came and the past participle form come is spelled out after the label past tense and past participle respectively. If the past tense form and the past participle form of a verb have the same form, the form is spelled out after the label past tense and past participle. Thus, in case of the verb teach, the past tense and past participle form taught is spelled out after the labels past tense and past participle respectively. If the past tense form and the past participle form of a verb have the same form, the form is spelled out after the label past tense and past participle. Thus, in case of the verb teach, the past tense and past participle form taught is spelled out after the label past tense and past participle respectively. The past tense and past participle forms of regular verbs are not shown in LDOCE4. However, if a verb has both regular and irregular inflected forms, the two forms are spelled out with the appropriate labels attached. For instance, in the case of the verb dive, the two past tense forms dived and dove are presented with the label AmE attached to the latter form. This system is the same as the one employed in LDOCE3.

As for nouns, the regular plural forms are usually not shown in LDOCE4.
However, the regular plural form of a noun is spelled out if there are changes in its spelling. For example, the plural form of the noun *baby* is spelled out as *babies*, while the plural form of the noun *adult* is omitted. Irregular plural forms are shown immediately after the part-of-speech label with the label *plural*. For example, the plural form of the noun *tooth* is spelled out as *teeth* after the label *plural*. If the plural form changes according to meanings, the appropriate plural form is shown at the beginning of each demarcated sense. In the case of *mouse*, the plural form of mouse in a sense of an animal is shown as *mice* in the first demarcated sense, while the plural form of an object connected to a computer is shown as *mouses* in the second demarcated sense. In LDOCE3, the plural form of an animal is shown as *mice*, but that of the computer equipment is not shown.

As for adjectives, the comparative form and superlative forms are shown in bold face immediately after the part-of-speech label with the labels *comparative* and *superlative* respectively. It should be noted that even the regular comparative and superlative forms are fully spelled out in LDOCE4, while they are omitted in LDOCE3. For example, the comparative and superlative forms of the adjective *small* are fully spelled out in LDOCE4, while they are not shown in LDOCE3. If there are changes in spelling in comparative and superlative forms, then the regular comparative and superlative forms of an adjective are fully spelled out in both LDOCE3 and LDOCE4. Thus, in the case of *big*, the comparative and superlative forms are fully spelled out as *bigger* and *biggest* in both LDOCE3 and LDOCE4. The irregular comparative and superlative forms are fully spelled out in both LDOCE3 and LDOCE4. Therefore, the comparative and superlative forms of *good* are spelled out as *better* and *best* after the label *comparative* and *superlative* respectively in both editions.

As to syntax, syntactic patterns are spelled out using explicit grammar codes and patterns that show the grammatical features and syntactic behavior of the entry words. They will be examined in detail in the next subsection.

### 7.2. Grammar codes and patterns

Grammar codes and patterns are listed up on page ii of LDOCE4. LDOCE3 does not distinguish *grammar codes* and *patterns*. They just group them together and call them *grammar codes*. LDOCE4 classifies the grammar codes into two groups. Those that denote grammatical features of a word are called *codes*, while those that denote syntactic behavior of a word are called *patterns*. Table 4 and 5 compare the codes and patterns used in LDOCE3 and LDOCE4.

As we can see from the tables, the codes and patterns used in the two editions are almost the same. The codes are exactly the same in both LDOCE3 and LDOCE4. However, there are minor changes in the patterns. The pattern *get lost|trapped|caught* in LDOCE3 is done away with in LDOCE4, while the new pattern *throw sth at sb|sth* is introduced in LDOCE4.

The codes are placed at the beginning of an entry either immediately after the word-class label or immediately after the inflected form(s) of an entry word. If the entry word is polysemous and have more than one demarcated senses, the codes are placed immediately after the demarcating number of each sense. The patterns are all printed in bold in the entries and are followed by corresponding examples (See section 5 for details about examples).

### 7.3. Grammar notes

#### 7.3.1. Grammar notes for affixes

There are grammar notes in square brackets in the entries of affixes. Similar notes also appear in LDOCE3.

In the case of prefix *un-*, the first demarcated sense has the note [in adjectives, adverbs, and nouns] and the second sense has the note [in verbs]. This is because the meaning of the prefix changes depending on the part of speech of the word that a prefix forms with a stem. In this case if the prefix forms an adjective, an adverb or a noun, it would add a sense of negativeness, lack or opposite to the word, such as in the case of adjectives *unfair* and *unhappy*. However, if the prefix forms a verb, it would show an opposite of a certain action, such as in the case of the verbs
Table 4  A Comparison of Codes and Patterns in LDOCE3 and LDOCE4

<table>
<thead>
<tr>
<th></th>
<th>LDOCE3</th>
<th>LDOCE4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[C]</td>
<td>[C]</td>
</tr>
<tr>
<td>2</td>
<td>[U]</td>
<td>[U]</td>
</tr>
<tr>
<td>3</td>
<td>[I]</td>
<td>[I]</td>
</tr>
<tr>
<td>4</td>
<td>[T]</td>
<td>[T]</td>
</tr>
<tr>
<td>5</td>
<td>[singular]</td>
<td>[singular]</td>
</tr>
<tr>
<td>6</td>
<td>[plural]</td>
<td>[plural]</td>
</tr>
<tr>
<td>7</td>
<td>[linking verb]</td>
<td>[linking verb]</td>
</tr>
<tr>
<td>8</td>
<td>[always+adv/prep]</td>
<td>[always+adv/prep]</td>
</tr>
<tr>
<td>9</td>
<td>[not in progressive]</td>
<td>[not in progressive]</td>
</tr>
<tr>
<td>10</td>
<td>[no comparative]</td>
<td>[no comparative]</td>
</tr>
<tr>
<td>11</td>
<td>[only before noun]</td>
<td>[only before noun]</td>
</tr>
<tr>
<td>12</td>
<td>[not before noun]</td>
<td>[not before noun]</td>
</tr>
<tr>
<td>13</td>
<td>[only after noun]</td>
<td>[only after noun]</td>
</tr>
<tr>
<td>14</td>
<td>[sentence adverb]</td>
<td>[sentence adverb]</td>
</tr>
<tr>
<td>15</td>
<td>[+adj/adv]</td>
<td>[+adj/adv]</td>
</tr>
<tr>
<td>16</td>
<td>[also+plural verb BrE]</td>
<td>[also+plural verb BrE]</td>
</tr>
</tbody>
</table>

Table 5  A Comparison of Patterns in LDOCE3 and LDOCE4

<table>
<thead>
<tr>
<th></th>
<th>LDOCE3</th>
<th>LDOCE4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[+between] [+about]</td>
<td>[+between] [+about]</td>
</tr>
<tr>
<td>2</td>
<td>—</td>
<td>throw sth at sb/ sth</td>
</tr>
<tr>
<td>3</td>
<td>decide that</td>
<td>request that</td>
</tr>
<tr>
<td>4</td>
<td>sure (that)</td>
<td>surprised (that) or tell sb (that)</td>
</tr>
<tr>
<td>5</td>
<td>decide who/what/how etc</td>
<td>decide who/what/whether etc or ask (sb) who/what/where etc</td>
</tr>
<tr>
<td>6</td>
<td>resolve to do sth</td>
<td>try to do sth or order sb to do sth</td>
</tr>
<tr>
<td>7</td>
<td>see sb/sth do sth</td>
<td>help do sth or see sb/sth do sth</td>
</tr>
<tr>
<td>8</td>
<td>see sb doing sth</td>
<td>enjoy doing sth or hear sb doing sth</td>
</tr>
<tr>
<td>9</td>
<td>bring sb sth</td>
<td>bring sb sth</td>
</tr>
<tr>
<td>10</td>
<td>get lost/trapped/caught</td>
<td>—</td>
</tr>
</tbody>
</table>


undress and unpack. If the meanings of affixes are not influenced by the stem, then ad hoc notes mentioned above are not used. Thus, there are no notes in the entries for the prefixes anti-, de-, in-, sub-, under-, and so forth.

The same thing can be said about suffixes. The note is usually placed immediately after the part-of-speech label. If a suffix is polysemous, the note is placed immediately after the number that demarcates each sense. Take the suffix -ist as an example. The meaning of the suffix is classified into five subsenses. The first demarcated sense has the note [in nouns] (e.g., Buddhist, atheist); the second [in adjectives] (e.g., her socialist views, rightist parties); the third [in nouns] (e.g., a linguist, a novelist); the fourth [in adjectives] (e.g., a very sexist remark); the fifth [in nouns] (e.g., They are a bunch of racists) (p. 863).

7.3.2. An orphan note

In the entry of the pronoun each other, there is a note [not used as the subject of a sentence]. This is the only entry where this note is used. This note is also used in the corresponding entry in LDOCE3. We doubt the necessity that the information which this note conveys should be indicated in the form of a grammar note. We believe that this is a piece of information which should be presented in the form of a usage note.

7.4. Signs

The use of signs is one of the new features in LDOCE4. There are four signs that are newly introduced in this edition: =, ≠, →, and Δ. The signs = and ≠ are white on a gray background. The arrow is short, thick and black. The sign ! is black and placed in a triangle.

The signs = and ≠ are used to introduce a synonym and an antonym of an entry word respectively. This is a new system introduced in this edition, and the synonyms and antonyms are presented in quite a large number in LDOCE4. It may be worth mentioning that COBUILD4 preceded LDOCE4 in the use of the similar symbols to refer to synonyms and antonyms for its entry words, but without the use of the gray background color. While COBUILD4 lists them in the extra column,
LDOCE4 shows the synonyms and antonyms after the definition of an entry word. For example, notorious indicates the word infamous as its synonym and the first demarcated sense of generous indicates the word mean as its antonym. When there is a difference between the British and American usage, the words used in the respective countries are mentioned using the sign =. For instance, in the entry for apartment, the noun flat is referred to as a synonym for the entry word with the label BrE attached, while apartment is shown as a synonym in the first demarcated sense of the entry for flat.

A thick short black arrow is used to refer to words that are related to the entry words. The related word led by an arrow is placed immediately after the definition of an entry word. For example, in the entry for reverie, the word daydream is presented after the arrow. Sometimes there are cases when the word referred to is not included as an entry word in LDOCE4. The word auricle was referred to as a related word in the entry for ventricle, but auricle is not included as an entry word in LDOCE4. Similar cases may happen when the referred words are highly technical. The referred related word is printed in bold small capitals when the entry word is contained as a part of the referred word. For instance, the related words referred to in the entry for vein is in bold small capitals since they contain the word vein as a part of them such as DEEP VEIN THROMBOSIS and VARICOSE VEINS.

Lastly, there is a black exclamation mark placed inside a triangle. This sign is used to introduce warning signs addressed to the users of the dictionary. The warning note in an entry is placed after a definition. It often concerns grammar and usage. For instance, in the entry for the verb effect, there is a warning note "△ Do not confuse with the verb affect (= to have an effect on something)." These warning notes seem to derive from the analysis of the Longman Learners' Corpus. The warning notes also appear in large numbers in the column WORD CHOICE (See section 9 for further discussion on WORD CHOICE.).

(R. Takahashi)

8. Collocations
LDOCE4 puts an emphasis on the importance of showing its entry words in collocations, that is, in the phrasal form in which the words are actually spoken or written. The same thing can be said about the previous edition, but the principle is even more reinforced and supported by the data collected from the corpora in the Longman Corpus Network in LDOCE4 (p. x).

When the collocations are not large in number, they are shown in bold before the examples or highlighted in bold in the examples in the entry. However, if a sense of an entry word has more than three collocations, the collocational patterns are listed in a special box called a collocation box placed in the entry. This is an innovation introduced for the first time in this edition.

A collocation box is a rectangular box framed with blue lines. It consists of two parts. The upper blue part lists the collocational patterns of the entry word in bold. The meaning is sometimes shown in parentheses after the collocations. The examples in which the collocations are used are listed at the bottom part of the box in order of the collocational patterns listed in the upper part of the box. The collocations are highlighted in bold in the examples. Prepositions that are typically used with exemplified collocational patterns are shown in square brackets before the examples. According to the introduction of the dictionary, the examples are cited directly from or based on the corpora in the Longman Corpus Network (ibid.). However, the users should be careful, for not all collocational patterns are exemplified.

8.1. Collocation boxes 21)
There are 299 collocation boxes in LDOCE4. Each entry has only one collocation box. There is only one exception. The noun record is exceptional in that it has two collocation boxes in its entry; one box for the first sense and another for the second sense.

The collocation boxes are mostly found in the entries of 3,000 most common words in English, which are printed in red in LDOCE4. Only 33 out of the 298 words are not among the 3,000 most common words. The
collocation boxes are located mostly in the entries for nouns. Out of 298 words that have a collocation box in its entry, 272 words are nouns. The rest contain 16 adjectives, 9 verbs and one pronoun.

A collocation box mostly appears in the first sense of an entry word. Among the 277 polysemous words that have collocation boxes in their entries, the words that do not have their collocation box for their first sense are only 26. This indicates that most collocation boxes are set up for the sense that is most frequently used, since the senses in an entry are listed in order of frequency in LDOCE4.

The minimum number of collocational patterns in a collocation box is four, while the maximum number is 21. The average number of patterns in a collocation box is approximately 10. The average number of examples listed in a collocation box is 9.

8.2. The number of collocational patterns in LDOCE3 and LDOCE4

Fifty collocation boxes were taken as samples and the number of collocational patterns in a box was compared with that of the collocational patterns shown in the corresponding subentry in LDOCE3. The collocation boxes taken as samples were: answer1, attention, battery, benefit1, border1, call2, company, consent1, court2, dead1, different, doubt2, effect1, fate, flame1, fun1, god, guilt1, health, history, human1, imagination, inspiration, jail1, knot1, learner, loan1, marriage, member, mood, mystery1, objection, odds, ordeal, pain1, personal, possible1, problem, racial, road, school1, settlement, speed1, talent, threat, truth, value1, view1, war, and world1.

The average number of collocational patterns in each of the sample collocation boxes is about 10, while the average number of collocational patterns presented in each of the corresponding subentries in LDOCE3 is about 3. This indicates that the number of collocational patterns which LDOCE4 provides the users with is about three times as large as that of the collocational patterns which LDOCE3 provides the users with.

The number of collocational patterns found commonly in both LDOCE4 and LDOCE3 was 3 in average. The number of collocational patterns found only in LDOCE4 was 8 in average, while that of collocational patterns found only in LDOCE3 was about 0.9 in average.

8.3. Example sentences in collocation boxes

As stated in the introduction, the example sentences that illustrate the use of collocations in LDOCE4 are mainly “drawn directly from or based on the corpus (p. x).”

We compared the example sentences that are commonly used both in LDOCE3 and LDOCE4 to exemplify the same collocation. We found out that the illustrative sentences used in both editions are quite similar, although those in LDOCE4 are slightly changed to simplify the sentences. Take the entry for answer1 as an example. The collocations found commonly in both LDOCE3 and LDOCE4 are the following: give (sb) an answer; the answer is no!; and in answer to. The illustrative sentences for the three collocations in LDOCE3 are: You don’t have to give them an answer straight away; If it’s money you’re after again, the answer is no!; In answer to your question, I think you can go, respectively. The corresponding example sentences in LDOCE4 are: You don’t have to give them an answer now; If it’s money you want, the answer is no!; In answer to your question, yes, you can go. We can see from this case that LDOCE4 may have made an effort to provide the users with more simplified examples so as not to trouble the users with the use of difficult words in its example sentences. As to the reaction of the users towards the illustrative sentences in LDOCE4, refer to our user research in section 12.

(R. Takahashi)

9. WORD FOCUS and WORD CHOICE

In the new edition there are boxes such as WORD FOCUS, WORD CHOICE, GRAMMAR, US/UK DIFFERENCE, SUGGESTIONS, and POLITENESS. According to the Introduction, word focus boxes are a completely new feature of the new edition. While that may well be true, much of the information contained in the word focus boxes was included in USAGE NOTE of the previous edition. Indeed, many words taken up in the WORD FOCUS and WORD CHOICE boxes in LDOCE4 were dealt with in the USAGE NOTE in LDOCE3. So before going on to an
examination of WORD FOCUS and WORD CHOICE in LDOCE4, we will look at the change in treatment of these features. USAGE NOTE, which was claimed to be newly introduced in LDOCE3, contains several different kinds of information about words and the usage of words. This information is concerned with WORD CHOICE, GRAMMAR, SPELLING, FORMALITY, POLITENESS, AmE-BrE DIFFERENCE, COLLOCATION, STYLE, SPOKEN-WRITTEN. These features are treated in two different ways: individually and in pairs or groups. In the following 9.1., listed words in bold letters are treated in boxes such as WORD CHOICE, GRAMMAR, and so on, and the asterisked words are treated in the WORD FOCUS boxes in LDOCE4. Other words are not treated in those boxes in LDOCE4.

9.1. Entry words with a USAGE NOTE in LDOCE3

9.1.1. Single treatment

9.1.1.1. WORD CHOICE: actually, adequate, admission, affect, after¹, almost, alone¹, area, beautiful, between, big, body, borrow, bring, cheap¹*, clothes, cold¹, continual, control², damp¹, destroy, disease, disinterested, economic, excuse¹, excuse², famous*, farther¹, fat¹, few, fire*, firstly <first>², fit¹, front¹, gain¹, gaze¹, glance¹, habit, high¹, hire¹ <rent³>, ignore, infer, insure, intelligent*, invent, job¹, join¹, kill¹, know¹, land¹, lastly, lawyer, little¹, money, nervous, noise¹, obtain, old⁴, open², pay¹, position¹, priest, production <produce²>, race¹, rare <rarely>, refuse¹, relationship, round¹, shame¹, shock¹, shore², sit, steal¹, surely, taste¹, thin², thus, under¹, unless, visit¹, wide¹, win¹.

Words within conjoined square brackets show that they are treated under different entry words in each edition. For example, firstly was treated in WORD CHOICE of LDCE3, but it is treated under the entry word first² in LDCE4. In LDOCE4, the WORD CHOICE box for front¹ is subdivided into two sections on the basis of its meaning, which is one of the improvements in the treatment of the word group in the WORD CHOICE box in LDOCE4.

9.1.1.2. GRAMMAR: agree, amount¹, deal¹, enjoy, enough², fed up, [gotten], hardly, hundred, (lay³), listen¹, more¹, most¹, of, own¹, per-

son, (regret¹), same¹, the¹, wash¹, much¹

The above words are all treated in the USAGE NOTE: GRAMMAR in LDOCE3. While the words in bold letters are explained again in a GRAMMAR box in LDOCE4, the others are not included in a GRAMMAR box. However, some grammatical information of the words deal¹, enjoy, listen¹, and more¹ is given after the warning mark Δ in LDOCE4. Lay² and regret¹ are treated in WORD CHOICE boxes and gotten is treated in the US/UK DIFFERENCE box in LDOCE4. Though trivial, the expression “Grammar points” used in LDOCE3 is changed to a unified term “GRAMMAR” under the entry word much¹ in LDOCE4.

9.1.1.3. FORMALITY: above², me, moreover, (none¹), one¹, which, yet¹

Part of the information given in me can be found in I, and information on moreover, one¹, and which is given after the mark Δ in the explanation of the respective entry words in LDOCE4. None¹ is explained in WORD CHOICE in LDOCE4. Here it seems noteworthy that the explanation concerning Formality of yet¹ is given in the GRAMMAR box for yet¹, and in the same box there is a WORD CHOICE section dealing with the words yet, still, and already in LDOCE4, which may be a relic of the box-treatment in LDOCE3.

9.1.1.4. Others

AmE-BrE DIFFERENCE (UK-US DIFFERENCE) (BRITISH AND AMERICAN ENGLISH):¹ inclusive, just¹, o'clock, presently, professor <teacher>

Information concerning AmE-BrE usage difference of inclusive is given after the mark Δ in the final part of the definition of inclusive in LDOCE4, which contains WORD CHOICE under the entry word include. O'clock is explained in a box without a specific name in LDOCE4. Professor is treated in the WORD CHOICE box of teacher in LDOCE4.

POLITENESS: he, man¹, negro, welsh

Part of the information given about he is explained in the GRAMMAR box of they in LDOCE4. Man, negro and welsh do not have a politeness box in LDOCE4. However, part of the information in the politeness box of man¹ in LDOCE3 is given in a related entry word chairman in
56

ICHIKAWA, SHIMIZU, TAKAHASHI, KANAZASHI, ISHII


57

LDOCE4.

SPELLING: burn*, every

Burn* is treated in WORD FOCUS in LDOCE4, and the information about the spelling is deleted in LDOCE4. Part of the spelling information about every is given after the mark Δ in the entry words everyday and everyone in LDOCE4.

9.1.2. Conjoined treatment

9.1.2.1. WORD CHOICE; GRAMMAR: also, answer2, ask*, become, bored, but1, can1, child, comprise, cost1, dress2, during, each1, help1, lead1, life, outside2 <out>, owing <owing to>, pair1, raise1, rather, reason1, request2, say1, since3, speak, still1, teach, telephone1, travel1 <travel>, trouble1, unique, wait1, wish1, worth1

Concerning these words, most of the grammatical information is given after Δ or NOT in the respective entry words in LDOCE4. However, grammatical information in the GRAMMAR section of the USAGE NOTE for words such as outside, owing, pair, request, etc., is omitted in LDOCE4 as is fundamental grammatical information for words such as ask, can, child, cost, lead, raise, etc. Part of the grammatical information for words such as answer and trouble is given in COLLOCATION boxes in LDOCE4. Grammatical information of become is given in the explanation of WORD CHOICE. Grammatical information for dress and telephone is given by means of an example sentence for dress and after Δ in the final part of the definition of phone2 respectively in LDOCE4. Ask is treated in a WORD FOCUS box and reason is treated only in a GRAMMAR box in LDOCE4. Wish has a WORD CHOICE box and a GRAMMAR box separately in LDOCE4. Though WORD CHOICE and GRAMMAR are always explained in different boxes in LDOCE4, the treatment of worth is one of the two exceptions (cf. the treatment of yet). GRAMMAR and WORD CHOICE for worth are explained in a single box in LDOCE4 as in LDOCE3, but in reversed order (i.e. GRAMMAR with different descriptions coming before WORD CHOICE). USAGE NOTE for telephone in LDOCE3 is worthy of attention because of the way it is treated in regard to WORD CHOICE.

9.1.2.2. WORD CHOICE; SPELLING: bath, beginning, chance1, sick1, technique

Concerning all these words, spelling information that is definitely too fundamental and elementary is deleted in LDOCE4. This change seems to reflect the editorial policy of the new edition that it has not tried to make the dictionary more helpful to teachers of English and students at intermediate to advanced levels (cf. Introduction to LDOCE3), but more to advanced level students of English (cf. Introduction to LDOCE4). Beginning is not treated in the WORD CHOICE box, but its content is explained by example sentences in the COLLOCATION box in LDOCE4.

9.1.2.3. GRAMMAR; SPELLING: always, (cause)2, no2, pay1, whether, worse1

Of the above words, pay1 and worse are treated in the GRAMMAR boxes but spelling information is deleted in LDOCE4. Pay is also explained in WORD CHOICE for pay2 (n) in addition to the GRAMMAR box for pay1 (v). Cause1 is also treated in the WORD CHOICE box in LDOCE4. Spelling information of no1 and whether is given after Δ in the entry words nobody1 and whether respectively.

9.1.2.4. GRAMMAR; SPOKEN-WRITTEN: marry*, nice*

The entry words married and marry are treated in a separate WORD FOCUS box in LDOCE4. Nice is treated in WORD FOCUS, but its grammatical features in LDOCE3 are explained after Δ in LDOCE4.

9.1.2.5. Others

Concerning day and especially which were treated in [WORD CHOICE; GRAMMAR; SPELLING], spelling information of day is deleted and grammatical information of especially is given after Δ in LDOCE4. Of place1, propose, and reach1 in [WORD CHOICE; In spoken English . . . ; GRAMMAR], grammatical notes of place are deleted in LDOCE4, and those of propose and suggest (one of the words in WORD CHOICE of propose) are given after the warning mark Δ and in the

Normally under WORD CHOICE we find a list of related words, but in this case, there is the expression "words related to the telephone." It is quite likely that this treatment of the Word choice was a hint of what would become WORD FOCUS in LDOCE4.
In LDOCE3, the following words are entry words in which groups of words are treated in WORD CHOICE: actually, adequate, admission, affect, after¹, almost, alone¹, also, answer², area, ask*, bath¹, beautiful, become, beginning, between², big, body, bored, borrow, bring, but¹, can¹, chance¹, cheap²*, child, clothes, cold¹, comprise, continual, control¹, cost¹, damp¹, day, destroy, disease, disinterested, dress², during, each¹, economic, especially, excuse¹ (n), excuse¹ (v), famous*, farther², fat¹, few, fire¹*, firstly <first²>, fit¹, front¹, gain¹, gape¹, glance¹, habit¹, help¹, high¹, hire¹ <rent¹>, ignore¹, infer, insure, intelligent*, invent¹, job¹, join¹, kill¹, kindly², know¹, land <ground¹>, lastly, lawyer¹, lead¹, life³, little¹ <small¹>, machine¹, money¹, nervous¹, noise¹, obtain, occur, old¹, open², outside² <outside¹>, owing <owing to>, pair¹, pay¹, place¹, position¹, priest, production, propose¹, race¹, raise¹, rare, rather², reach¹, reason¹ <cause¹>, refuse¹, relationship, request², round², say¹, shame¹, shock¹, shore³, sick¹, since³, sit, speak¹, steal¹, still¹, street, surely, taste¹, teach, technique, telephone¹, thin¹, thus, travel¹, trouble¹, under¹, unique, unless², wait¹, wide¹, win¹, wish¹, worth¹.

Of these 131 words, 60 words in bold face (i.e. 45.8% of the total) are also treated in WORD CHOICE in LDOCE4 and the six asterisked words are treated in WORD FOCUS in LDOCE4. However, all the other 65 words (49.6%) are left out in WORD CHOICE in LDOCE4.

In LDOCE4, the following word groups are treated in WORD CHOICE: [a, an], [after, in, afterwards], [ago, before, previously], [also, too, as well, either], [as, like, as if], [at, in, on] (talking about time; talking about position and place), [beautiful, pretty, handsome, good looking, attractive, gorgeous, stunning], [become, get, go, turn, grow, come, become] [been in, been to, went to], [believe, believe in], [big, large, great], [a bit, a bit of] [bring, take, get, fetch], [by, with, in], [call, phone, telephone, ring], [can, could, be able to], [cause, reason], [chance, chances, luck], [close, shut, turn/switch off], [clothes, clothing, garment, cloth], [come, go], [continual, continuous], [control, manage, run, be in charge], [cost, costs, price, charge, fee, fare], [critic, review, criticism, critique], [customer, client, patron, shopper, consumer], [damage, hurt, injure, wound¹], [damp, moist, humid], [destroy, ruin, spoil], [dinner, supper, tea, lunch], [direct, take, guide, lead], [during, while], [each, every], [especially, specially], [except, besides, apart from, unless], [excuse me, pardon me, beg your pardon, sorry], [in fact,
as a matter of fact, the fact is . . . ], [fat, overweight, obese, chubby, plump, big, well-built], [fault, blame, mistake], [fear, afraid, frightened], [a few, few, a little, little, a bit, fewer, less], [first, first of all, firstly, at first], [in front, opposite, face; in front of, before], [gain, earn, get], [glance, glimpse], [gleam, glint, glisten, glitter, glow], [ground, land,earth, soil, floor], [habit, custom, tradition, practice], [help, assist, give sb a hand, lend a hand, help out], [hold, take/get hold of, pick up], [ignore, be ignorant of, not know], [illness, disease], [include, consist of, comprise, be composed of, be made up of] [job, work, post, position, occupation, profession, career], [kill, murder, execute, put to death, kill yourself, commit suicide, slaughter, massacre, assassinate], [know, find out, get to know], [lastly, finally, eventually, in the end, at last], [lawyer, attorney, solicitor, barrister, counsel], [lay, lie], [luck, lucky], [machine, device, gadget, appliance], [made from, made of, made by], [money, cash, change, currency], [nervous, anxious, annoyed, irritated], [none, neither], [out, outside, outdoors, out of doors], [owing to, due to, because of, thanks to], [package, packet, packaging, packing, pack], [parking, parking space, car park, parking lot], [pay, salary, wages, wage, income, fee], [pharmacist, pharmacy, chemist, chemist's, drugstore], [position, place, location, where, there], [produce (v), produce (n), product], [proud, arrogant, conceited, big-headed, vain], [raise, rise], [rather, fairly, quite, pretty], [realize, recognize], [regret, be sorry], [remember, remind], [rent, hire, lease], [repair, fix, mend], [rich, well-off, wealthy, affluent, prosperous], [say, tell, give, ask], [see, watch, look at], [seem, appear, look, sound], [shadow, shade], [shake, wobble, rattle, vibrate, tremble, shiver], [shop, store], [sick, throw up, vomit, ill, not well, unwell], [since, for, during, over], [sit, sit down, sit in/on, seat], [sleep, asleep], [slide, slip, skid], [small, little], [speak, talk], [still, always], [storey, story, floor], [student, schoolchild, pupil], [suppose, guess], [surely, certainly, naturally, be sure to], [teacher, professor, lecturer, tutor, instructor, coach, trainer], [thin, slim, skinny, slender, lean, slight], [travel, traveling, journey, trip, voyage, crossing, flight], [trouble, problems, troubles], [type, kind, sort], [under, underneath, below, beneath], [unless, if . . . not, in case, or (else)], [unusual, strange, odd, bizarre, extraordinary, exceptional, remarkable], [wait, expect, look forward to, await], [wide, thick, broad], [wish, hope, want, would like], [worth, value]

Of these groups of words, 60 of them have been carried over from the previous edition. 51 groups in bold face are newly introduced in LDOCE4 and four of them, i.e. word groups which are treated under the entry words lay2, make1, none1, and regret1 are partly based on the Usage Note (GRAMMAR), (COLLOCATION; GRAMMAR), (FORMALITY), (GRAMMAR) in LDOCE3.

Concerning the 60 word groups which are treated in both editions, some groups are treated under different entry words depending on the edition. For example, word groups under the entry words reason1, firstly, land1, disease, outside2, hire1, and little1 in LDOCE3 are treated under cause1, first2, ground1, illness, out1, rent1, and small1 respectively in LDOCE4. A small improvement in the treatment of WORD CHOICE is that the first word of the group taken up in LDOCE4 is the same as the entry word, which is not always the case in LDOCE3. One of the main differences in WORD CHOICE dealt with in both editions is that different words are selected in all WORD CHOICE boxes except those under the entry words damp1, destroy, ignore, disease <illness>, kill1, owing <owing to>, pay2, little1 <small1>, under1, and worth1. With respect to WORD CHOICE boxes dealing with identical words, their explanation is almost the same in both editions, but the explanation about the word groups of ignore, illness, and small is improved in LDOCE4 by the use of warning marks or the addition of new information about their usage. With respect to the number of words explained in WORD CHOICE, there is a small increase in the case of entry words such as beautiful, become, few, travel2, and unless. However in most cases, the number has been decreased and the words have been partly substituted (cf. cost1, fat1, money, nervous, since, thin1, wide1). In the case of bring, chance1, during, lastly, and position1, the number of words treated there is the same but word selection is partly different between LDOCE3 and LDOCE4. On the whole, the
selection of words is made on the basis of the common and central meaning of the words, and the explanations of the related words have become more concise and much better in LDOCE4. One clear indication of this can be seen in the treatment of WORD CHOICE for at, big\textsuperscript{1}, control\textsuperscript{2}, and front\textsuperscript{1}, where two different groups of words are explained on the basis of their meanings. Another defining characteristic of WORD CHOICE in LDOCE4 is the effective use of the warning mark, which has contributed to the improvement of WORD CHOICE.

Though there is no characterization of the WORD CHOICE section in USAGE NOTE in LDOCE3, there is a clear explanation about Word choice notes in “How to use the Dictionary” in LDOCE4, and it is explained that “word choice notes explain the differences between closely related words and gives examples that show how they are used differently.” Comparing the Word choice in both editions, words taken up in Word choice in LDOCE4 are more carefully selected than those in LDOCE3.

9.3. WORD FOCUS in LDOCE4

In LDOCE4, there are 108 headwords which have WORD FOCUS boxes. As we have already touched upon, ten of them were provided with USAGE NOTE in LDOCE3, i.e. cheap\textsuperscript{1}, famous, fire\textsuperscript{1}, intelligent, and old are from WORD CHOICE, burn\textsuperscript{1} is from SPELLING, ask is from WORD CHOICE; GRAMMAR, marry and nice are from GRAMMAR; SPOKEN-WRITTEN, and God is from FORMALITY AND POLITENESS; SPELLING; GRAMMAR.

As to the way in which WORD FOCUS is presented, there are two main types: one is WORD FOCUS: words meaning <entry word> and the other is WORD FOCUS: <entry word>. Entry words which are treated in the first type are: ask\textsuperscript{1}, break\textsuperscript{1}, cheap\textsuperscript{1}, clean\textsuperscript{2}, cook\textsuperscript{1}, cry\textsuperscript{1}, cut\textsuperscript{1}, expensive, happy, laugh\textsuperscript{1}, poor, sad, talk\textsuperscript{1}, taste\textsuperscript{1}, and walk\textsuperscript{1}. In the second type, the main group begins with the expression “similar words:”. The following are treated in this manner: accident\textsuperscript{1}, army, boring, choose\textsuperscript{1}, company, dangerous\textsuperscript{1}, dirty\textsuperscript{1}, doctor\textsuperscript{1}, embarrassed, famous, friend, funny, important, intelligent, interested, interesting, kind\textsuperscript{2}, loud\textsuperscript{1}, phrase\textsuperscript{1}, plane\textsuperscript{1}, praise\textsuperscript{1}, shocked\textsuperscript{1}, shy\textsuperscript{1}, television, unkind\textsuperscript{1}, and worried\textsuperscript{1}. Other expressions are also used, such as “synonyms:” (argue), “types of . . .:” (advertisement, hospital, hotel, house\textsuperscript{2}), “parts of . . .:” (garden\textsuperscript{1}, tree), “very . . .:” (bad, good, surprised, surprising, wet\textsuperscript{1}) and “what you do at . . .:” (airport). Other entry words in WORD FOCUS are: army, book\textsuperscript{1}, breathe, burn\textsuperscript{1}, car, change\textsuperscript{1}, colour\textsuperscript{2}, computer, confident, court\textsuperscript{1}, crime, criticize, die\textsuperscript{1}, difficult, easy\textsuperscript{1}, environment, fast\textsuperscript{1}, film\textsuperscript{1}, fire\textsuperscript{1}, give\textsuperscript{1}, god, hard\textsuperscript{1}, hit\textsuperscript{1}, horrible, Internet, language, long\textsuperscript{1}, mail\textsuperscript{1}, married, marry, meal, name\textsuperscript{1}, newspaper, old, pain\textsuperscript{1}, police\textsuperscript{1}, quiet\textsuperscript{1}, read\textsuperscript{1}, religion, restaurant, road, run\textsuperscript{1}, ship\textsuperscript{1}, short\textsuperscript{1}, smell\textsuperscript{1}, soft, space\textsuperscript{1}, strong, tight\textsuperscript{1}, weak, weather\textsuperscript{1}, write, and young\textsuperscript{1}.

In “How to use the Dictionary,” there are explanations such as “The Word Focus boxes show you groups of words that are related to the word you have looked up in the dictionary” and “This is a very useful tool for vocabulary-building, and it can also remind you of a word that you may have forgotten”. Indeed, some Word Focus boxes are useful for increasing vocabulary because they show, as is claimed, many similar or related words and expressions, and explain the difference in meaning and usage among them. Especially, WORD FOCUS boxes beginning with “words meaning <entry word>” can be rated highly, because they explain the related words or expressions clearly and concisely in most cases. Other WORD FOCUS boxes containing rather detailed explanation of the difference in meaning and usage of related words and expressions should also be recognized. However, those that list only similar words (i.e. those of the asterisked words above) seem to need some improvement. Those similar words can indeed remind us of a word that we may have forgotten, but unless they have a similar treatment as other WORD FOCUS boxes, they cannot be regarded as being worthy of the name WORD FOCUS.

9.4. Other boxes in LDOCE4

9.4.1. GRAMMAR boxes

In the previous edition, the following words are explained in the Grammar section of Usage Note. GRAMMAR: agree, amount\textsuperscript{1}, deal\textsuperscript{2}, enjoy, enough\textsuperscript{2}, fed up, gotten, hardly, hundred, lay\textsuperscript{2}, listen\textsuperscript{1}, more\textsuperscript{1}, most\textsuperscript{1}, praise\textsuperscript{1}, shooked\textsuperscript{1}, shy\textsuperscript{1}, television, unkind\textsuperscript{1}, and worried\textsuperscript{1}. Other expressions are also used, such as “synonyms:” (argue), “types of . . .:” (advertisement, hospital, hotel, house\textsuperscript{2}), “parts of . . .:” (garden\textsuperscript{1}, tree), “very . . .:” (bad, good, surprised, surprising, wet\textsuperscript{1}) and “what you do at . . .:” (airport). Other entry words in WORD FOCUS are: army, book\textsuperscript{1}, breathe, burn\textsuperscript{1}, car, change\textsuperscript{1}, colour\textsuperscript{2}, computer, confident, court\textsuperscript{1}, crime, criticize, die\textsuperscript{1}, difficult, easy\textsuperscript{1}, environment, fast\textsuperscript{1}, film\textsuperscript{1}, fire\textsuperscript{1}, give\textsuperscript{1}, god, hard\textsuperscript{1}, hit\textsuperscript{1}, horrible, Internet, language, long\textsuperscript{1}, mail\textsuperscript{1}, married, marry, meal, name\textsuperscript{1}, newspaper, old, pain\textsuperscript{1}, police\textsuperscript{1}, quiet\textsuperscript{1}, read\textsuperscript{1}, religion, restaurant, road, run\textsuperscript{1}, ship\textsuperscript{1}, short\textsuperscript{1}, smell\textsuperscript{1}, soft, space\textsuperscript{1}, strong, tight\textsuperscript{1}, weak, weather\textsuperscript{1}, write, and young\textsuperscript{1}.
However, only the following words are explained in the Grammar box in LDOCE4, in which the words in bold face are newly selected as words to be explained in the Grammar box: case (just in case), enough, even, half, hardly, holiday, if, intention, many, most, much, music, need, of, pay, person, problem, provide, qualification, reason, recommend, responsible, same, smell, staff, suggest, thank you, the (when to use ‘the’), there, they, used to, well, wish, worse, worth, yet.

Concerning the entry words that are treated in Grammar in both editions, their grammatical explanations are almost the same, and here as well the use of the warning mark △ and NOT has made the explanation in LDOCE4 much more concise. Grammar in the Usage Note of LDOCE3 has been deleted when grammatical information given there is redundant — that is, when almost the same thing is shown in the grammatical notation in front of the example sentence (cf. agree).

\[\text{course}\] was treated in both the Politeness and Style sections, but the information given in the Style section is missing in LDOCE4. Needless to say, the information regarding the usage for of course is enriched in LDOCE4. O’clock which was treated in UK-US Difference in LDOCE3 is now treated in a box without a specific name in LDOCE4.

(Y. Ichikawa)

10. Illustrations

10.1. Illustrations in the printed edition

10.1.1. Unlike the previous edition, which boasted “over 2300 words illustrated” (LDOCE3, dust cover), LDOCE4 does not mention the number of illustrations anywhere in the front matter or on the dust cover. On a brief survey of the entire dictionary, we estimate the total number of the illustrated entry items in the new edition to be somewhere between 1,300 and 1,400, including those appearing merely as part of the illustrations for related entry items. From the fact that LDOCE4 does not mention the number itself, it would be safe to say there has not been a great increase in the number of illustrations, and actually we get the impression that the whole number has not changed much.

10.1.2. As in the case of the previous edition (Urata et al. 1999: 89), there has been a drastic change once more in the choice of words to be illustrated. Out of the 28 entry items beginning with b, for example, which were accompanied by illustrations in LDOCE3, 14 (back, balance, bar code, blinds, blow up, blurred, bolt, boring, bounce, bow, bud, bull’s eye, bully, and burst) are left without illustrations in LDOCE4. Five (bagel, bandage, body, boots, and butterfly) are still illustrated in this edition, but relocated to the illustrations for other entry words. Only nine (bag, barbecue, basket, bed, bicycle, bite, board, bottle, and brush) have retained their illustrations in this edition, though the pictures themselves are totally different from those in the previous edition. 17 (backhand, balloon, barrier, bat, bedroom, big cat, bin, bird of prey, block, bonsai, bouquet, box, bread, break (v), bridge, broken, and bundle) have been newly illustrated in this edition.
Some of the new illustrations seem to have been introduced in the new edition for convincing reasons: *bonsai*, for example, is now getting more and more popular in the English-speaking world and the lexicographers might have decided it was time to illustrate it, because it is one of the words to which "verbal explanations are unable to describe the meaning content with sufficient precision, concentration, completeness, and clarity" (Svensén 1993: 167). With most other cases, however, we cannot guess why the new illustrations had to be added, taking the place of those that appeared in the previous edition.

LDOCE3 had some excellent illustrations for entry words other than concrete nouns, such as the ones for *balance (n)*, *boring (adj)*, *bully (v)*, and *bounce (v)*, all of which have been purged.

What happened to the illustrations in the B section exemplifies the general pattern in the new edition; half of the illustrations in the previous edition, more or less, have been purged while almost the same number have been newly introduced, and the criteria for adding and purging illustrations are not clear.

10.1.3. Most of the entry items illustrated in LDOCE4 are nouns with concrete meanings, but a certain amount of space is devoted to nouns with abstract meanings, verbs, and adjectives. More than 100 nouns with abstract meanings are illustrated, often in sets of related words, as in the successful case of *demonstration-procession-riot*, or using several pictures to show the processes as in the excellent illustrations for *food chain* and *metamorphosis*. Another strategy often employed to illustrate nouns with abstract meaning or adjectives is to show pictures of related items, as in the case of *make-up*, which is accompanied by photographs of a lipstick, a make-up brush, and an eye-shadow kit. Although we appreciate the efforts to use illustrations as part of definitions of nouns of this kind, we have to point out there are cases like *accident, arrest (n)*, and *interview* where we cannot figure out what the photographs stand for.

10.1.4. LDOCE3 ambitiously introduced illustrations for over 180 verbs, including the commendable ones explaining the differences between related verbs, such as *hear-listen, nod-shake one's head*, and *steal-rob*.

(Urata et al. 1999: 89). Though all these illustrations have been deleted, about 100 verbs are appropriately illustrated in LDOCE4, mostly in pairs or in combination with related verbs, as in the cases of *offer-refuse, bite-chew-peck-nibble, and drink-sip-lap-suck*. Verbs illustrated with single photographs or drawings, such as *examine* and *share*, are now rare. The schemes for showing the differences between the related verbs are well exploited in the new edition, and one of the colour pages titled 'Cleaning' successfully illustrates 12 verbs related to cleaning. Illustrations for verbs seem to have been enriched in quality, in spite of the fact that illustrated verbs seem to have been enriched in quality, in spite of the fact that illustrated verbs have somewhat decreased in number.

10.1.5. LDOCE4 illustrates over 60 adjectives. Some of the successful illustrations in the previous edition, such as the ones for *thick-thin* and *broken*, have been retained, and many more have been newly illustrated in the new edition. One of the colour pages titled 'Surface' is successfully designed for illustrating 12 adjectives which describe surfaces. It is worth noting that a new strategy for illustrating adjectives has been introduced (see 4.1.3.): *multipurpose* is accompanied by a photograph of a multipurpose knife, and *acoustic* by photographs of two men, one playing an acoustic guitar and the other an electric one. Another example is *electric*, which is accompanied by four photographs — of a bulb, an extension lead, fuses, and batteries. This is an innovation which would not have been introduced into a purely language-oriented dictionary, but it will come into wide use if learner's dictionaries are to offer more and more encyclopedic information.

10.1.6. We appreciated the ambitious and successful illustrations for prepositions in the previous edition, but they have all been deleted. For adverbs and adverbial phrases, LDOCE3 had a few but very good illustrations, which have been entirely purged in the new edition. In these cases, the illustrations were elaborately designed to provide visual support for the description of the meanings. We miss them badly and hope that such illustrations offering linguistic, not encyclopedic, information, will not be forgotten in the trend towards dictionaries with encyclopedic information.
10.1.7. As we have seen above, most of the illustrations are shown in pairs or groups, so that the differences between similar objects are understood and the range of shapes and forms covered by a particular word is shown. Illustrations presented in this way also serve as an important aid to vocabulary expansion (LDOCE2: F49). This was an innovation in the early editions of LDOCE, and now it seems to have taken a firm hold in learner's dictionaries. Not only verbs and adjectives, but also concrete nouns are illustrated in this way, and *egg*, for example, is accompanied by drawings of *boiled eggs*, *poached eggs*, *fried egg*, and *scrambled eggs*. The user might at first be puzzled with such illustrations, but will find them useful in most of the cases. It should be noted that references are indispensable if illustrations are presented in groups. As compared with the previous edition, LDOCE4 gives references far more carefully, but if we take one of the colour pages titled 'Cleaning', on page 319 as an example, we find that of the 12 words illustrated there, one phrasal verb, *wash up*, is lacking a reference.

10.1.8. Plenty of photographs have been introduced into the illustrations of LDOCE4. At first thought, we may expect they will offer visual information far more clearly and accurately than drawings. However, photographs themselves have their own limitations. It is no coincidence that most of the unsuccessful illustrations found in the new edition are photographs, such as those for *fierce*, *exhausted*, *arrest*, *wet*, and *accident*, just to mention a few. In the photograph for *fierce*, for example, we cannot tell which is fierce, the man or the dog. With drawings, on the other hand, the surroundings can be made anonymous by obscuring them. While we welcome the introduction of photographs, we hope they will be chosen more carefully for the next edition.

10.1.9. As mentioned in the front matter, all the illustrations are in full colour in the new edition. We do not think full colour pages are indispensable for the study of English, but welcome it, since it might attract the users and make the dictionary look more accessible, though we are not sure if "[t]his makes the dictionary easier and more interesting to use, and the colour photographs and drawings make studying English more lively" (LDOCE4: vii).

10.1.10. Two Full-page illustrations, titled 'Environmental problems' and 'Environmental solutions', have appeared in the new edition. We appreciate the attitude of the editors towards environment which is expressed in these illustrations. We can also see their attitudes towards gender and race in the illustrations in which men do the housework and people of various races appear together.

10.1.11. It is worth mentioning that three maps, of the United Kingdom, Australia and New Zealand, and North America, have been added to Full-page illustrations. These maps, together with 'Geographical names', also newly introduced in LDOCE4, reflect its orientation towards encyclopedic information.

10.2. Illustrations in the CD-ROM edition

10.2.1. The number of illustrated entry items in the CD-ROM edition is said to be 1,499. After a careful check of the word list displayed in the pop-up window, we estimate the number of the illustrated nouns as around 1,400, verbs as around 60 and adjectives as around 40.

10.2.2. If we take the *B* section of the CD-ROM edition as an example, as we have done with the printed edition (see 10.1.2.), the total number of illustrated nouns is 130, while only two are verbs (*bite* and *brush*) and another two are adjectives (*bent* and *broken*). As compared to the case of the printed edition, more than four times as many nouns are illustrated.

10.2.3. With so many illustrations in the CD-ROM edition, one would expect that all the entry items illustrated in the printed edition must also be illustrated in the CD-ROM, but it is not the case. Five entry items (*bed*, *bedroom*, *big cats*, *birds of prey*, and *break*), illustrated in the printed edition, are not illustrated in the CD-ROM for reasons we cannot figure out. Even when the same entry items are illustrated in the printed...
edition as well as in the CD-ROM edition, different illustrations can be assigned, as in the cases of bouquet and accident.25)

10.2.4. It is regrettable that the schemes for showing the differences between related words are not exploited in the CD-ROM: in the printed edition, bite is accompanied by four drawings standing for bite, chew, peck, and nibble, while only one photograph for bite accompanies it in the CD-ROM. One would expect that such shortcomings will be well compensated by the search function, with which we can see photographs for related items one after another. However, as discussed in 11.7., this search function is not efficient enough to do such a job.26 We hope all the illustrations in the printed edition will also be contained in the CD-ROM edition.

10.2.5. It is strange that none of the 7,000 encyclopedic entry items featured in the CD-ROM are accompanied by illustrations. Since illustrations are extremely effective with items of this kind, we hope that illustrations will be assigned wherever they are necessary.

10.2.6. As pointed out in 10.1.8. with the printed edition, there are many cases including wet, kneel, and giggle, in which we cannot figure out what the photographs stand for. The merits and demerits of using photographs as illustrations need to be considered. (A. Shimizu)

11. CD-ROM

This section points out the differences between the printed and the CD-ROM editions of LDOCE4. The advantages and disadvantages of the CD-ROM edition (henceforth “L4-CD”) are compared to the printed one. Although L4-CD contains Longman Language Activator and offers “POP UP MODE”, we are not concerned here with them but only with the dictionary itself.

11.1. Front, middle, and back matters

11.1.1. Front matter

11.1.1.1. Pronunciation table

The pronunciation table appears in the on-line Help in L4-CD. Although its accessibility is decreased in comparison to the printed edition, this does not pose a great problem since recorded sounds accompany each word enabling association of the IPA transcriptions with the actual sounds. However, as pointed out in 3.2.2–3.2.4., the user should be cautious of the discrepancies between transcriptions and actual sounds found in some cases.

11.1.1.2. Short forms and labels

Short forms used in the printed edition such as sb (‘somebody’) and sth (‘something’) are spelled out in definitions, boldface collocations, and phrasal verbs in L4-CD,27 while they are not in the phrase bank.

As for the labels such as formal and biblical, L4-CD does not mention them at all.

The regional labels BrE (‘British English’) and AmE (‘American English’) are spelled out in L4-CD in principle as seen in the following example:

army
1 the army [also + plural verb British English] the part of . . .

However, they are inconsistent in the usage notes:

‘COLLOCATES for sense 1’ in bail (extraction)
• stand bail/put up bail BrE (= pay someone’s bail)
• jump bail also skip bail British English (= not return to trial as you promised)

‘HINT sense 2’ in bath
It is more usual to say have a bath British English or take a bath AmE.

All of a small number of occurrences of AusE (‘Australian English’) are not spelled out but notated as AusE except in the definition of dinkum where its spelled-out form is used in the printed edition, too.

It is easy to find inconsistencies in the notational system in L4-CD.
11.1.3. Grammar codes and patterns

Explanation for the grammar codes such as [C] ('countable') and the patterns such as [+about] (showing that the word can be followed immediately by about) are not included in L4-CD. Instead, the abbreviations [C], [U], [I], and [T] are spelled out as [countable], [uncountable], [intransitive], and [transitive] respectively. Collocational patterns of particles are spread out in the same way as other collocational patterns; for example, a part of the sense 1 of battle:

the printed edition

[+for] a pressure group battling for better schools | battle to do sth

Doctors battled to save his life.

L4-CD

battle for

• a pressure group battling for better schools

battle to do something

• Doctors battled to save his life.

The abbreviated code “adv/prep” in [always + adv/prep] and [usually + adv/prep] are spelled out as “adverb/preposition” in general, and the code [+adj/adv] is always spelled out as [+adjective/adverb].

11.1.4. Others

L4-CD does not contain the foreword, which, however, does not seem to degrade its value since most of the users would not wish to read it on a computer screen.

Although L4-CD also lacks the introduction and the instruction “How to use the dictionary”, it contains an on-line Help facility and “Guided tour”, which can be seen as alternatives to the deleted information.

11.1.2. Middle matter

The printed edition has “Language Notes” as the middle matter, which is not included in L4-CD. This cannot be regarded as a serious deficiency since the information therein would not be searched for in L4-CD where the users pursue easy accessibility of information. The middle matter could be seen as a sort of reading matter fit for being read on paper.

11.1.3. Back matter

Maps and appendices are included as the back matter in the printed edition. Although L4-CD does not have these appendices as separate contents, most (but not all) of the geographical names are included as entries. The problem is, however, that the items available only in L4-CD are not accompanied by IPA transcriptions and recorded sounds. Also, there is an inconsistency in their treatment; for example, while Alaska and Botswana appear as entry items, the adjectival derivative of the former, Alaskan, appears as a run-on entry and the counterpart of the latter, Tswana, is not included in L4-CD. This can be seen as arbitrary and inconsistent. It should have included all the geographical words with IPA transcriptions and recorded sounds.

11.2. Search

11.2.1. Dictionary search

A search can be performed not only for entry items but also for words contained in the full entries including definitions and examples. This searchability in the CD-ROM edition is much higher than that in the printed one where only search by entry items is possible. The search result is shown as a list of entry items including the search key. The following are major characteristics of what can be called a “basic search” where a search is done just by typing a word or phrase in the box in the upper left part of the window:

• When two or more letters are typed in the search box, words beginning with the letters appear in the index list that will drop down (see Figure 1). (This function is called “automatic suggestion” henceforth.)

• When a search item is entered in the box and the “OK” button is clicked, all the entry items including the search key are listed in the main part of the window. If tax is searched for, for instance, the list contains not only tax (noun), tax (verb), and taxing but also capital gains tax, car tax, etc. which are impossible to find in the printed edition where all the entry items are arranged alphabetically. This is one of the greatest advantages of the CD-ROM edition.

• When there are too many candidates such as when a or the were searched
for, a floating window pops up listing the candidates to choose from.

- When there are more than one candidate for the search, it is not possible to open more than one entry at one time; for instance, the entries drive (noun) and driving (noun) cannot be opened at the same time to compare their meanings. This was possible in the CD-ROM edition of LDOCE3 (henceforth “L3-CD”) and is to be modified in the future versions. The first entry in the list automatically opens in some cases, but the criterion by which this is the case is not explained, and could not be found.

- A phrase can also be entered into the search box. This is also a major benefit thanks to the electronic medium (Heuberger 2000: 129-131). The dictionary suggests phrases that match the request in a floating window (see Figure 2). By choosing a phrase from the list, the entry will open at the selected phrase highlighted in blue, which is extremely useful. Collocations and boldface parts of examples seem to be the candidates for this search function. However, how this function works is not clear; for example, when live the life is the search key, the result contains not only live the life of but also in the land of the living, the living, and 61 others.

- When an item searched for is included as a run-on entry, the dictionary shows the same result as when the entry item which contains it is searched for. The automatic suggestion, however, does not work in this case.

- Words whose spellings are varied between British English and American English can be searched with both types of spelling; when theater is searched, the entry of theatre is produced. The automatic suggestion does not work when t-h-e-a-t-e for theater is entered, which should be improved. However, while the same thing happens with a word such as organization ("also -isation BrE" is noted in the printed edition) when organisation is searched, the alternative spelling of aluminium ("BrE; aluminum AmE" is noted in the printed edition) does not appear when aluminium is searched. This should be seen as another example of inconsistency.

The following are major characteristics of what can be called “advanced search” where an in-depth search can be carried out by clicking on the
"Search" button and selecting "Dictionary search":

• Wildcard (*) searches can be performed. It is disappointing, however, that a wildcard can be used only at the end position of a search item.
• Logical conditions (AND/OR/NOT) can be used to restrict the search result.
• The number of candidates is shown as soon as each letter is entered in the search box for the dictionary search, which enables the user to decide whether to use stricter conditions in order to narrow the search result.
• The frequency filter is available. This function makes it possible to extract only those entry words that are among the 1,000/2,000/3,000 most frequent words. The filter is available separately for spoken and written English.
• The results can be filtered by specifying the part of speech.
• The style filter is available for "biblical", "formal", "humorous", etc. When a style label is attached not to the whole entry but to a separate sense, the entry is ignored by the filter; for example, trunk which has the label technical for its sixth sense is not produced when the style filter is specified as "technical". This inflexibility and the inability to accept logical conditions in this function should be improved.
• The search key is highlighted in red in the entry. When the key is a phrase or words connected together with logical conditions, all the words in the search box are highlighted. The entry opens when a candidate is chosen from the floating window, but without jumping to the highlighted part as in the case of phrase searches.
• If the option “Always check spelling” is enabled, when the search key entered does not match anything, words which are close to the key are automatically listed.

11.2.2. Multimedia search

This function enables searching for illustrations and sound effects. The yielded result shows all the entry items which contain the search key and have an illustration or a sound effect in the entry. The illustration contained in the entry harness¹, for instance, has two labels “harness” and “rope”, but this illustration is accessible by searching with harness but not by rope which has another illustration (in rope¹). This should be reformed.

11.2.3. Subject search

A database of words organized by categories can be searched by choosing theme/section/subject area (the subgroups do not necessarily have to be selected). Since the overall organization of the thesaurus is not made clear and a search with any key desired cannot be performed, it does not go so far as to systematically indicate the basic ideas and corresponding words that learners need and it is unfortunately not of much use.

11.2.4. Word origin search

Etymological information can be searched, but there are only certain choices for “Language of origin” and “Date” available. It would be more useful if logical conditions were allowed and the year period could be freely set.

11.2.5. Pronunciation search

Words with a particular pronunciation can be found with this function. IPA symbols can be put in through the on-screen key pad. The wildcard (*) can be used for any number of symbols, but only at either the beginning or the end of the search string. Stress is ignored and cannot be searched. Those cases where two vowels vary according to speakers (/a/ and /a/) can be searched with either of the two vowels. In the case of /a/ which means that /a/ may or may not be pronounced, the word can be searched whether or not the search key has /a/ in the appropriate position. Those words whose pronunciation is varied between British English and American English need some care; only when the American pronunciation is spelled out without abbreviation with the “-” symbol, can the search program match the search request with the pronunciation. For example, coordinate (/kəʊˈɔːdɪnət $ kəʊˈɔːr-/ ) cannot be searched with its American pronunciation, while coordinator (/koʊˈɔːrdɪnər $ koʊˈɔːrɪdər/) can because the American pronunciation is spelled out.

The words with a separate pronunciation for a separate sense cannot be
searched. To take an example, while that has /ðæt/ for the whole entry and /ðət/ separately for its second sense, that cannot be searched with /ðət/. Another example would be the entry scorer whose first sense includes “also scorekeeper /skɔːrkɪpə/”. It would not be matched by means of searching with the pronunciation of scorekeeper. A search request will not match run-on entries, either.

The overall impression is that this function should be much more flexible and be capable of wildcards in the middle of the string and accepting logical conditions. For more discussion, see 3.2.6.

11.3. Entry items

Entry items are not colored in L4-CD. The color for the entry items are of importance in the printed edition for a quick search, but it is of little value in the CD-ROM edition since search is done by typing letters with a keyboard.

The blue toolbar below the entry item has the following buttons which are activated only when relevant information is available (see Figure 3).

- The speaker icon: A floating window appears where IPA transcriptions and recorded sounds are available.
- Menu: The signposts, collocations, and phrasal verbs are listed in a floating window, in which an item can be clicked to jump to it. It is of great use for large entries.
- Usage note: GRAMMAR, WORD CHOICE, COLLOCATES, HINT, WORD FOCUS, and SUGGESTIONS are displayed in a floating window. Frequency charts are, however, not included in L4-CD, which may disappoint the users.
- Word origin: Etymological information appears in a floating window.
- Verb form: All the inflectional forms of a verb are listed in a floating window. When the British and American forms are different, they are listed separately.
- Word set: The same database can be accessed as with the subject search function. The categories which contain the entry item are listed in a floating window, and by clicking on a category the same result as in the case of selecting the category with the subject search can be accessed. For the subject search function, see 11.2.3.

A separate syllabified notation with syllable dots can be displayed by enabling the option “Show syllable dots” in the “SETTING” menu.

11.4. Pronunciation

IPA transcriptions are the same as in the printed edition. One of the major advantages of L4-CD is that all the entry items that are also in the printed edition are accompanied by their recorded sounds both in American and British style. The user can also record his or her own pronunciation and compare it to the recorded sounds. See Section 3 for a more detailed discussion of pronunciation.

11.5. Definition

All the definitions in the printed edition are also included in L4-CD. What is characteristic of the CD-ROM edition and one of its greatest advantages at the same time, is that the users can instantly jump from any word in the entry to its full entry in the secondary definition window (see note 29 and Figure 6) for words the user is unfamiliar with. When a word is double-clicked in the secondary definition window, the window shows the new entry. A phrase can also be selected by highlighting it, and selecting “Look up expression” from the right-click menu returns the same result as one obtained by typing a phrase in the search box.

11.6. Examples

11.6.1. The same examples as in the printed edition

L4-CD contains all the examples included in the printed edition. The dictionary displays a sentence per line. In addition, collocations (which are in boldface black letters in the printed edition) are displayed in boldface blue. These characteristics render the dictionary much easier to read than
the printed edition.

11.6.2. Phrase bank

The phrase bank is a database of collocations containing not only those in the dictionary but also other information, and is available only in the CD-ROM edition. The inside back cover says that there are "over 150,000 collocations to show how words are used together", and the last note in the middle matter (p. 986) says, "The CD-ROM of the dictionary contains all the text of the printed book, but in addition contains a further 173,000 collocations with examples."

The phrase bank consists of three sets of information: "Dictionary phrases" (collocations in boldface blue and boldface part of examples in the same entry), "Phrases from other entries" (other entries per se and those phrases in other entries under the same criterion as the previous one), and "Words used with" (collocates categorized according to their parts of speech) (see Figure 4).

When an item from "Dictionary phrases" is selected, the output jumps to the item and it is highlighted in blue. When the selected item is in "Phrases from other entries", the secondary definition window pops up at the position of the selected item without being highlighted. By selecting an item from "Words used with", the examples bank (see 11.6.3.) displays relevant examples (this function also works with the first two categories).

The phrase bank is indeed an advantage of L4-CD, but it has many unsatisfactory aspects, too. Four of them are described here. The first is that some items are inappropriate as a phrase; "take . . . the blame" in the phrase bank in blame2 (corresponding to an example in the entry You can't expect Terry to take all the blame.) is an example. This misleadingly may give the user the impression that the blank part ( . . . ) can be substituted with any noun/pronoun or some other word. This is probably because data in the phrase bank is automatically generated from the body texts. The second problem is that part of speech is not considered; for instance, the phrase bank in talk2 (noun) lists some items including talk as a verb such as "aren't talking- see talk, v" (Phrases from other entries).

The third deficit is that although the printed edition successfully shows the close relationship between the collocating patterns (the upper part) and their examples (the lower part) in the collocation box, L4-CD shows the example part in the entry and the pattern part in the usage note which does not automatically appear, failing to show their connection. The last shortcoming is that it is not made clear which sense of the entry item corresponds to each item in the "Phrases from other entries" until the entry item where the relevant phrase is included is looked up; for example, in the phrase "with/at the touch of a button/key- see touch, n" (Phrases from other entries in key2), it is not entirely clear which sense of key2 corresponds to this usage. These defects could have been avoided with adequate care.

11.6.3. Examples bank

The examples bank is a database of additional examples available only in the CD-ROM edition. Entry items and the items in the phrase bank have their own data for the examples bank, but there are cases where there is no corresponding data. This database consists of "Extra dictionary
examples” and “Sentences from books, newspapers, etc.”. The size of the former is claimed to be “nearly 80,000” (inside back cover), and the online Help says that there are “80,000 examples from other Longman dictionaries”. As for the size of the examples from other sources, the inside back cover says that “over a million sentences from books, newspapers, and magazines to show how almost every word and phrase is used”, and the guided tour says that there are “1 million additional sentences taken directly from the Longman Corpus Network”.

When a new window is opened by clicking on the top right button in the section of the examples bank and the “corpus mode” is selected, the examples are displayed in KWIC format, which is a very helpful function when one wants to know the general collocational tendency of the key item.

One shortcoming of the examples bank is that the examples for an entry and those corresponding to each item in the phrase bank are independent from each other, which lowers its usability. For example, tax\(^1\) has *I made over $600 a week, which was around $450 after tax.* for the examples bank (Extra dictionary examples) which is not accessible from a phrase item “before/after tax” in the phrase bank.

Another problematic feature is that the categories of the sources are too broad compared to those in ordinary corpora where very specific information on texts is available. This is a serious drawback and it would be desirable that more specific classification (such as “fiction” and “newspapers”) should be made. As Jehle (1999: 358) writes, “we should be careful not to fall victim to the desire to have as many examples available as possible. The quantity criteria should never override the criteria of careful selection and of a sophisticated microstructure.”

### 11.7. Illustrations

The number of illustrations is questionable. When the “pictures” option is selected while leaving the search box empty in the multimedia search function, the display shows that there are 1,499 candidates. This number seems to indicate the number of words with one or more illustrations. There are some cases where more than one illustration are used in
one entry as in barrel. So actually there are 1,499 words that have one or more illustrations and about 200 of them are used more than once (the illustration used for pastry and filling, for example), and it seems that the total number of references to illustrations is slightly more than 1,500. Therefore, the claim in the inside back cover that there are “over 1500 words illustrated in photographs” is questionable, and the statement in the guided tour that there are “over 1500 pictures” is not true.

Illustrations can be searched through the multimedia search function which brings up a list of entry items whose entry has an illustration and includes the search key in it. By selecting an item in the floating window, the entry opens with the search key highlighted in red. For example, when searching for talking with the multimedia search, the search result contains hold, which just has an illustration and In April, the President held talks with Chinese leaders. (“talks” is displayed in red letters) in its examples. This kind of searchability may be useful in some cases, but the search function should offer a filtering option in order to have only highly relevant candidates.

An advantage of L4-CD is that by clicking on any label in the illustrations, its definition is displayed in the secondary definition window (see Figures 5 and 6).

The illustrations included in L4-CD are different from those in the printed edition. Some are available only in L4-CD (such as two illustrations in trunk), others are included in both (such as the illustration in trick), and still others are different in the printed and CD-ROM editions; for example, while keyboard in the printed edition includes illustrations of a computer keyboard and an electronic keyboard with labels, L4-CD has only one of a computer keyboard and does not have labels. It is also questionable why all the illustrations in the printed edition are not included in L4-CD and many changes have been made. For a more detailed discussion of illustrations, see Section 10.

11.8 Other information available only in CD-ROM

11.8.1 Etymological information

Some words have brief etymological explanations. The number of words with the etymological information is claimed to be 14,000 on the inside back cover.

11.8.2 Inflectional forms of verbs

All the inflectional forms of verbs can be seen in the dictionary. Run-on verbs do not have an inflectional table.

11.8.3 Thesaurus

The database is accessible through “Word set” and “Subject search”, but explicit information on this thesaurus is not given.

11.8.4 Sound effects

Some onomatopoetic words have their actual sounds. For example, one can listen to the chirping sound of a bird by clicking on the sound icon in the entry chirp. The contents list on the inside back cover says the dictionary has “200 words illustrated with sound effects”.

11.8.5 Additional entries

There are many proper names such as river names that are available only in the CD-ROM edition. They are based on LDELC (p. xi). As pointed out in 11.1.3., part of the additional entries are the same as those included in the “Geographical names” section in the back matter of the printed edition. These additional entries are not accompanied by IPA transcriptions and recorded sounds.

As for the number of these entries, the inside back cover says that there are “over 6500 encyclopedic entries for people, places, events, etc.”, and the guided tour claims the number to be over 7,000.

11.9 Overall evaluation of L4-CD

11.9.1 Advantages of L4-CD

The following are some major advantages of L4-CD in comparison with the printed edition:

• Looking up items can be done much more quickly.
• Searching for phrases is much easier to carry out.
A multitude of collocations and examples are provided.
• Sound effects are available for some onomatopoetic words.
• Hyperlinks are available for related entry items.
• When encountering an unknown word, it is possible to jump to it in the secondary definition window, which takes much less time compared to looking it up in the printed edition where one has to leaf through the dictionary until the entry in question is found.
• The texts for each entry (except for illustrations) can be printed and copied to the clipboard. The same goes for data in the phrase bank and the examples bank.

11.9.2. Disadvantages of L4-CD

The following are some major disadvantages of L4-CD in comparison with the printed edition:
• Availability of the usage notes is easy to miss because only the button indicates their availability. Furthermore, all types of usage information are categorized as “Usage note”, which prevents one from knowing what kinds of information are available. These points decrease the readability of the texts. (The CD-ROM edition of MED (henceforth “MED-CD”) always opens additional information when available.)
• While derivatives or related words are put close to each other in the printed edition where entry items are alphabetically arranged, the downward arrow icon beside the search box has to be clicked in order to see them in L4-CD (see Figure 7). Contrastingly, L3-CD (see Figure 8) and MED-CD always list consecutive entries as well as the search result. It would be desirable, at least optionally, to be able to see the items around the item in question.
• Although it is possible to go back to the previously seen entry using the search history, it is not possible to proceed again to the last entry once one has gone back. The MED-CD, in contrast, offers the “next” button, and L3-CD opens a separate window for each search, which enables opening several entries at the same time and jumping from one to another.
11.9.3. User-friendliness

In terms of user-friendliness, although the dictionary puts an emphasis on its linkage to Longman Language Activator or exercises, basic functions for searching and viewing the data leave much room for improvement. Also it would be desirable to be able to search for a word, phrase, or string with wildcards in an entry or data of the examples bank. This is especially the case when faced with a vast amount of texts. More flexible search functions such as full text search and freer availability of wildcards and logical conditions against the whole data in L4-CD would benefit the users. Some users may wish that each sense in an entry could be freely opened and closed when they want to look at and compare more than one sense that are not close enough to each other.

11.9.4. Educational effectiveness

Easy accessibility and reduced access time will lead to an increased chance of consulting the dictionary, which may have good effects for learners who use it for encoding purposes as well as for decoding purposes. Jehle (1999: 354–361) picks up three typical lookup situations where the CD-ROM edition of learners' dictionaries are used for encoding purposes; the user needs information on (1) more specific hyponyms of a superordinate which is already known, (2) valencies of a word, and (3) collocability of a word. The first situation among others often requires the user to look up related words, and easy accessibility from any word in an entry to its full entry in the CD-ROM edition will be highly beneficial for this situation. However, we should be careful not to conclude that CD-ROM dictionaries are unconditionally better for encoding purposes. As Heuberger (2000: 134–139) points out, users are required to have some knowledge and skills especially needed for looking up information in the CD-ROM dictionaries in order to make the best of them.

The phrase bank is of much potential use for learners. However, since frequent phrases and not so frequent ones are not differentiated, users may mistakenly assume that all the items in the phrase bank are equally frequent. It would be better if items with high frequency were marked in some way or given some kind of priority in terms of their treatment.

The examples bank is also potentially very useful, but users who can make the most of it will be fairly limited because the data are taken from "raw" data. A vocabulary filter would be desirable; a function with which only those examples that consist of a certain amount of vocabulary, such as 2,000 basic words, are displayed. Also, some information on the source of examples would be indispensable.

(Y. Ishii)

12. User Research

12.1. Background of the research

Our final task is to identify the facts that support our argument, particularly with regard to definitions and examples. In this section, we will report on the user research conducted by us and analyze the results. The research consists of four parts: a questionnaire regarding the participants' dictionary use in daily life, a task that compares the entries in three dictionaries (LDOCE4, LDOCE2, and COBUILD4), a task that compares the definitions in two dictionaries (LDOCE4 and LDOCE3), and a composition task using one of the three dictionaries (LDOCE4, LDOCE2, and COBUILD4). The first part is a replication of the bilingual and monolingual versions, Kanazashi (2001) and Dohi et al. (2002), respectively. The second part, where the participants were required to use the dictionaries while reading English, is largely based on Dohi et al. (2002), employing a similar question format. Whereas they compared complete entries in the second part, they only focused on definitions per se in the third part. A new aspect of this research is the last part, wherein the participants were required to write in English using a dictionary. Thus, this research is expected to investigate the users' reference skills not only in reception but also in production. For further information, particularly on the significance of conducting this type of user research in relation to an analysis of a dictionary, see Dohi et al. (2002: 61). The reasons for the replication are also stated in Dohi et al. (ibid.), referring to Hartmann (2001: 94, see also Hartmann (1998: 145)), who regrets that "[t]he various studies that have been carried out are difficult to evaluate and compare because the methods employed and the settings in which they take place are so diverse. Hardly any have been replicated by others, to verify
assumptions and findings . . . ."

12.2. Questionnaire

Similar to the two related studies (Kanazashi 2001 and Dohi et al. 2002), the present study begins with a questionnaire survey that includes similar set of questions on five main features of dictionary use. The questionnaire is prepared in Japanese, and its English translation is as follows:

(1) How long have you studied English?
(2) How often do you use an English-Japanese dictionary, a Japanese-English dictionary, and a monolingual English dictionary for your English studies? Please circle one of the following six choices that is the closest to the frequency of your dictionary use: <every day, twice or three times a week, once a week, twice or three times a month, once a month, less frequently than once a month, never>.
(3) Please name the English dictionary and, if any, the monolingual English dictionary that you use most frequently. Are they printed or electronic?
(4) On what occasions do you use each type of English dictionary? Please number the following in order of frequency (from 4 for the most frequent item to 1 for the least frequent, and nil for the occasion that you do not use a dictionary).
   — while reading English books, newspapers, magazines etc.
   — while translating English into Japanese
   — while writing English letters, essays etc.
   — while translating Japanese into English
(5) For what purposes do you use an English-Japanese dictionary and a monolingual English dictionary? Please number the following in order of frequency (from 10 for the most frequent item to 1 for the least frequent, and nil for the purpose that you do not use a dictionary for).
   — checking whether a word exists
   — checking spelling
   — checking pronunciation

The results of this questionnaire survey are reported and discussed in 12.7.

12.3. Comparison tasks (Part 1): between LDOCE4, LDOCE2, and COBUILD4

In order to investigate the extent to which entries in LDOCE4 and other dictionaries meet the needs of the users and whether the changes found in LDOCE4 represent any improvements over LDOCE2 and LDOCE3, we have devised two sets of comparison tasks that would reveal the facts that a questionnaire alone would not.

In each of the six sets of questions, the participants were required to read a short English sentence including an underlined word (leaf (v), absolution, baptize, circulation, headlong, and diatribe), look up the word in LDOCE4, LDOCE2, and COBUILD4, compare the respective entries, judge the best and the worst entries, explain the reasons for the judgments, and translate the word or the entire sentence. Admitting the ability to translate does not necessarily imply the ability to understand, we are unable to employ a more convenient method of assessing their comprehension. They were required to check (select) the appropriate reasons for the judgments. They could select multiple responses from the following list.

(1) for the best entry:
   — because the entry provides extensive information
   — because the entry is concise
   — because the definition is easy to understand
   — because the example is informative or easy to understand or remember
(2) for the worst entry:
— because the entry does not provide relevant information
— because the entry is lengthy
— because the definition is difficult to understand
— because the example is not informative or difficult to understand or remember

The six sentences were presented to the participants and either the entry was presented in full color or part of the entry including all definitions and examples was reproduced in black and white, in the following order.

(1) As I was leafing through the catalogue, I came across a number of interesting CDs.

leaf [LDOCE4] leaf2 v leaf through sth phr v to turn the pages of a book quickly, without reading it properly; ≡ skim through: She picked up the magazine and leafed through it.

[COBUILD4] leaf through If you leaf through something such as a book or magazine, you turn the pages without reading or looking at them very carefully. □ Most patients derive enjoyment from leafing through old picture albums.

(2) They were glad to receive absolution from their sins.

absolution [LDOCE2] n [U] (esp. in the Christian religion) forgiveness for a SIN: to grant someone absolution

[COBUILD4] If someone is given absolution, they are forgiven for something wrong that they have done. [FORMAL] □ She felt as if his words had granted her absolution.

[COBUILD4] n [U] when someone is formally forgiven by the Christian Church or a priest for the things they have done wrong: Pope Leo gave him absolution.

(3) Our English teacher was baptized as a Christian six years ago.

baptize [COBUILD4] ✓ in BRIT, also use baptise. When someone is baptized, water is put on their heads or they are covered with water as a sign that their sins have been forgiven and that they have become a member of the Christian Church. Compare christen. □ At this time she decided to become a Christian and was baptised.

[LDOCE4] also -ise BrE v [T] 1 to perform the ceremony of baptism on someone; → christen 2 to accept someone as a member of a particular Christian church by a ceremony of baptism: He was baptized a Roman Catholic. 3 to give a child a name in a baptism ceremony: She was baptized Jane.

[LDOCE2] also -tise BrE v [T] 1 to perform the ceremony of baptism on 2 [+obj+n] to admit as a member of the stated church by baptism: He was baptized a Roman Catholic. 3 [+obj+n] to give (someone) a name at baptism: She was baptized Sheila Jane.

(4) After she recovered from her illness, she was back in circulation again.

circulation [LDOCE4] n 1 [singular, U] the movement of blood around your body: Exercise improves the circulation. | good/bad circulation Doctors had to remove her leg because of bad circulation. 2 [U] the exchange of information, money etc from one person to another in a group or society: in/out of circulation Police believe there are thousands of illegal guns in circulation. | The book was taken out of circulation. | remove/withdraw sth from circulation The Treasury Department plans to remove older coins from circulation and replace them with new ones. 3 [C, usually singular] the average number of copies of a newspaper or magazine that are usually sold each day, week, month etc: The newspaper has a daily circulation of 55,000. 4 [C, U] the movement of liquid, air etc in a system: Let's open the windows and get some circulation in here. 5 in circulation/ out of circulation informal when someone takes part or does not take part in social activities at a particular time: Sandy's out of circulation until after her exams.
[LDOCE2] n 1 [C; U] the flow of gas or liquid around a closed system, esp. the movement of blood through the body: Bad circulation makes you feel cold. 2 [U] the movement of something, such as news or money, from place to place or from person to person: the circulation of rumours | The government has reduced the number of £5 notes in circulation. | These ideas have been in circulation for some time. | She's out of circulation (= not taking part in social life) at the moment because she's working for her exams. 3 [S] the average number of copies of a newspaper, magazine, etc., that are regularly sold: This magazine has a large circulation | a circulation of 400,000. | What will the effect on our circulation be if we increase the price to 25p? | a mass-circulation newspaper (= read by a large number of people)

[C O B U I L D 4] (omitted here since no helpful information was offered to the participants)

(5) He drove headlong into the crowd and caused the traffic accident. **headlong** [LDOCE2] adv, adj 1 (done) with foolish or unthinking speed: They rushed headlong into marriage. 2 (happening) quickly, suddenly, and without control: a headlong descent into anarchy and disorder. 3 HEADFIRST (1)

[C O B U I L D 4] 1 If you move headlong in a particular direction, you move there very quickly. | He ran headlong for the open door. 2 If you fall or move headlong, you fall or move with your head furthest forward. | She missed her footing and fell headlong down the stairs. 3 If you rush headlong into something, you do it quickly without thinking carefully about it. | Do not leap headlong into decisions. **Headlong** is also an adjective. | . . . the headlong rush to independence.

[LDOCE4] adv 1 rush/plunge headlong into sth if you rush headlong into something, you start doing it too quickly without thinking carefully 2 with your head first and the rest of your body following; = headfirst: I fell headlong into a pool of icy water. 3 very quickly, without looking where you are going: Mortimer almost ran headlong into a patrol. — headlong adj

(6) You may be tired of reading diatribes in the daily newspapers. **diatribe** [COBUILD4] A diatribe is an angry speech or article which is extremely critical of someone's ideas or activities. | □ The book is a diatribe against the academic left.

[LDOCE4] n [C] formal a long speech or piece of writing that criticizes someone or something very severely: [-against] a diatribe against contemporary American civilization

[LDOCE2] [against] fm/ a long violent attack in speech or writing

After the completion of the two sets of comparison, the participants were asked the following three oral questions related to each of the first three target words.

1. Were you bothered by the use of parentheses under the entry for leaf2 v in LDOCE2, or did you find the information in the parentheses helpful?

2. Did you find it odd that the definition of absolution begins with when in LDOCE4, or did you manage to comfortably read through it?

3. Did you stop to consider why the word baptized in the target sentence is followed by as but such is not the case in any of the examples in the dictionaries?

The results of Part 1 of the comparison tasks are reported and discussed in 12.8.

12.4. Comparison tasks (Part 2): between LDOCE4 and LDOCE3

The second part of the comparison tasks aims at revealing the difference in the definition between LDOCE4 and another dictionary (LDOCE3) in greater detail. For this purpose, only the definitions rather than the complete entries were presented to the participants. Four target words were chosen:

1. **abbreviate** (example: 'Information technology' is usually abbreviated to 'IT'.)

[LDOCE4] to make a word or expression shorter by not including letters or using only the first letter of each word
[LDOCE3] to make a word or expression shorter by missing out letters or using only the first letter of each word.

(2) **knockout** (example: *The fight ended in a knockout.*)

[LDOCE4] when a BOXER hits his opponent so hard that he falls down and cannot get up again.

[LDOCE3] an act of knocking your opponent down in BOXING so that he cannot get up again.

(3) **access**

[LDOCE3] the way by which you can enter a building or reach a place.

[LDOCE4] the way you use to enter a building or reach a place.

(4) **settlement** (example: *the settlement of the American West*)

[LDOCE3] the movement of a new population into a place to live there.

[LDOCE4] when a lot of people move to a place in order to live there, especially in a place where not many people have lived before.

After evaluating, the participants were asked to judge which of the two definitions were easier to understand, to indicate what part of the definition appeared favorable or unfavorable, and to translate the example or the better definition into Japanese. The results of this part are reported and discussed in 12.9.

### 12.5. Composition tasks

The last part of our user research is a set of five composition tasks, in which the participants used a specified dictionary to translate (parts of) Japanese text into English, or to compose English sentences describing given situations as follows:

1. **look up**
   
   Translate Japanese into English using *look up*: もし lexicography の意味を知らなければ、辞書で引きなさい。（For a non-Japanese, this is what the task involves: "If you do not know the meaning of 'lexicography' and your English teacher tells you to consult a dictionary, how would you describe the situation in English using *look up*?")

2. **cut, cut down** etc.
   
   Describe the following situation in English using *cut* or a phrasal verb with it: ある国では石炭の使用量を減らさなければならなかった。（Or for a non-Japanese, "Fill in the blank with an appropriate word or phrasal verb with *cut*: The country had to _____ the use of coal.")

3. **face**
   
   Describe the following situation in English using *face*: わが国は出生率の低下という問題に直面している。（Fill in the blank with an appropriate word or phrasal verb with *face*: Our country _____ a decreasing birthrate.

4. **furniture**
   
   Translate the following Japanese text into English: 新居にまだ家具を3点しか入れていない。（The translation would be “We brought only three pieces of furniture into our new house.”

5. **allow, forgive, permit**
   
   Which verb can you use in the translation of the following Japanese text into English? 先生はその学生が遅刻したのを許してやった。（Fill in the blank with an appropriate verb: The teacher _____ the student for coming late for class.)

The participants were asked to answer five questions using three dictionaries—one or two questions per dictionary. The participants in Group N were provided with part of the translation in order to focus on the point of the research without digressing due to unrelated material. In order to make sure that neither dictionary is consulted by too many or too few participants within each group, the dictionary to be consulted had been specified. If a participant was able to answer a question without referring to a dictionary, he or she was required to intimate us. Following each task, they were asked to indicate the information category that helped them with the composition or translation. The results of these composition tasks are reported in 12.10.

### 12.6. Participants in the research

A total of 118 people participated in the research, including 115 Japanese, 2 Chinese, and 1 Vietnamese; 107 undergraduate students, 7 post-
graduate students, and 4 others. Of these, 77 were male, while 41 were female.

They were classified into three groups on the basis of their exposure to English or to dictionaries. 12 participants, who (had) majored in English or who used English as frequently as English majors, were classified into Group M (majors). The rest (106) were in Group N (non-majors), of whom 10 were sub-classified into Group T (trained), as they had been trained to use the monolingual English dictionary for five months, with Komuro (2004) as a textbook. Most of the undergraduate students, irrespective of whether they belong to Group T, had occasionally used a monolingual dictionary in their weekly English lessons taught by the researcher.

12.7. Results of the questionnaire survey

All 118 participants answered the first question, “How long have you studied English?” The answers ranged from “6 and a half years” to “49 and a half years,” where the mean and mode are 9.4 and 6.5 years, respectively. Most of those in Group N are first-year university students who had studied English for 6.5 or 7.5 years, where the mean value for this group is 8.2 years, whereas most participants in Group M are postgraduate students and adults, 2 of whom had studied English for 49.5 years, which raised their average to 20.5 years.

Question (3) revealed how drastically the three years since the research conducted in 2001 (reported in Dohi et al. 2002: 69) has changed the medium by which Japanese students, particularly young undergraduates, look up words in the dictionaries. Three years before, only 8 out of 109 participants named an electronic dictionary. In the current research, however, 81 out of 113 (including 7 out of 12 in Group M, 5 out of 10 in Group T, and 75 out of 101 undergraduates aged under 30), who mentioned any dictionary, named an electronic bilingual dictionary, and 46 out of 78 (6 out of 11 in Group M, 5 out of 10 in Group T, and 57 out of 91 undergraduates under 30) named an electronic monolingual dictionary.

The results for the other items of the questionnaire are reported in the tables below. Table 6 shows the number of participants who used English-Japanese, Japanese-English, and monolingual English dictionaries according to the frequency of use.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>English-Japanese</th>
<th>Japanese-English</th>
<th>monolingual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group M</td>
<td>Group N</td>
<td>G. M</td>
</tr>
<tr>
<td>every day</td>
<td>7</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>2/3 times a week</td>
<td>3</td>
<td>42</td>
<td>3</td>
</tr>
<tr>
<td>once a week</td>
<td>2</td>
<td>27</td>
<td>2</td>
</tr>
<tr>
<td>2/3 times a month</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>once a month</td>
<td>0</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>less than a month</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>never</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Japanese, Japanese-English, and monolingual English dictionaries are excluded from the tables.34

The following is a summary of the results, essentially similar to Dohi et al. (2002: 71) with the exception of (6), which is a newly-observed trend, and

<table>
<thead>
<tr>
<th>Frequency</th>
<th>reading English books etc.</th>
<th>translating English into Japanese</th>
<th>writing English letters etc.</th>
<th>translating Japanese into English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G. M</td>
<td>G. N</td>
<td>G. M</td>
<td>G. N</td>
</tr>
<tr>
<td>means</td>
<td>3.3</td>
<td>1.5</td>
<td>2.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Table 7. Occasions on which participants use an English-Japanese dictionary

<table>
<thead>
<tr>
<th>Frequency</th>
<th>reading English books etc.</th>
<th>translating English into Japanese</th>
<th>writing English letters etc.</th>
<th>translating Japanese into English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G. M</td>
<td>G. N</td>
<td>G. M</td>
<td>G. N</td>
</tr>
<tr>
<td>means</td>
<td>0.7</td>
<td>0.9</td>
<td>0.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Table 8. Occasions on which participants use a Japanese-English dictionary
Table 9  Occasions on which participants use a monolingual English dictionary

<table>
<thead>
<tr>
<th>frequency</th>
<th>reading English books etc.</th>
<th>translating English into Japanese</th>
<th>writing English letters etc.</th>
<th>translating Japanese into English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G. M</td>
<td>G. N</td>
<td>G. M</td>
<td>G. N</td>
</tr>
<tr>
<td>4 (most frequently)</td>
<td>6</td>
<td>19</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>9</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>1 (least frequently)</td>
<td>1</td>
<td>10</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>0 (never)</td>
<td>2</td>
<td>29</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>means</td>
<td>2.7</td>
<td>1.7</td>
<td>1.4</td>
<td>2.4</td>
</tr>
</tbody>
</table>

(7), as the subdivision of Group N has been conducted only in the present study:

(1) Bilingual dictionaries are used far more frequently than monolingual ones;
(2) The dictionary is used for receptive purposes more frequently than in productive contexts;
(3) Excluding 2, all the participants use a dictionary to translate English into Japanese;
(4) Every Japanese participant in Group M uses an English-Japanese dictionary on every occasion listed;
(5) More than half of the participants from Group M use an English-Japanese dictionary most frequently while reading English, whereas the vast majority of participants from Group N do so for translating English into Japanese;
(6) For encoding, participants in both groups use a monolingual English dictionary to write spontaneously more frequently than to translate Japanese into English, but for decoding, there is a discrepancy between the two groups in the activities that they frequently perform;
(7) Excluding 1 in Group M, all in Groups M and T use a monolingual English dictionary, whereas 24 in Group N who are not included in Group T do not use one.

Therefore, the hypotheses similar to those of Dohi et al. (2002: 72) may be formulated:

(1) English teaching in Japan is largely based on translation at beginner's level, but at higher levels the learners refrain from excessive dependency on translation, and learn to use dictionaries for other purposes;
(2) Many Japanese who do not major in English keep a monolingual English dictionary at a respectful distance, regarding it as too difficult to comprehend.

Tables 10 and 11, each divided into three sections owing to their horizontal spread, indicate the numbers of participants who used dictionaries for the specified purposes, and the mean frequency of the use for
Table 11.1 Purposes for which participants used a monolingual English dictionary

<table>
<thead>
<tr>
<th>frequency</th>
<th>whether a word exists</th>
<th>spelling</th>
<th>pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G.M</td>
<td>G.N</td>
<td>G.M</td>
</tr>
<tr>
<td>10 (most frequent)</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 (least frequent)</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>0 (never)</td>
<td>7</td>
<td>45</td>
<td>5</td>
</tr>
</tbody>
</table>

means (each) 1.7 2.8 3.4 3.9 4.3 2.5
means (both) 2.66 3.8 2.70

Table 11.2 Purposes (continued)

<table>
<thead>
<tr>
<th>frequency</th>
<th>part of speech</th>
<th>meaning</th>
<th>synonym/antonym</th>
<th>Collocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G.M</td>
<td>G.N</td>
<td>G.M</td>
<td>G.N</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>60</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>7</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>11</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>6</td>
<td>38</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

means (each) 2.5 3.3 9.2 9.0 5.5 5.0 7.2 6.3
means (both) 3.2 9.0 5.1 6.4

Table 11.3 Purposes (continued)

<table>
<thead>
<tr>
<th>frequency</th>
<th>grammar</th>
<th>cultural information</th>
<th>etymology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G.M</td>
<td>G.N</td>
<td>G.M</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>24</td>
<td>6</td>
</tr>
</tbody>
</table>

means (each) 6.8 5.4 2.6 1.1 1.6 0.4
means (both) 5.6 1.3 0.6 0.4

Each purpose. Some participants wrote “0” for all the purposes mainly because they had never used a monolingual dictionary, and their answers have not been taken into consideration here, unlike in Dohi et al. (2002: 72–73).

Among the participants in Dohi et al. (2002: 72–73), the most frequent use of a dictionary was to look up meanings. This was followed by spelling, grammar, and pronunciation in the case of an English-Japanese dictionary, and by collocations and grammar in the case of a monolingual English dictionary. A very small number referred to a dictionary for cultural information and etymology. In the present study, the results are virtually the same as above, with the sole exception of collocations instead of pronunciation being the fourth most frequent purpose for which the participants use an English-Japanese dictionary. In particular, collocations were frequently referred to by those in Group T, whose mean frequency was 10.0 for meaning, 7.2 for collocation, and 6.7 for spelling in the case of a Japanese-English dictionary; 9.4 for meaning, 7.6 for collocation, and 6.3 for grammar in the case of a monolingual English dictionary. We
surmise that Komuro’s (2004: 28–34) emphasis on the significance of collocational information in a monolingual dictionary had encouraged those in Group T to refer to it in both types of dictionaries. Even those who did not use the textbook showed an increasing interest in information categories other than meaning, partly because many participants in Group N attended the researcher’s weekly lessons in which they used a monolingual dictionary. It is anticipated that these factors have enhanced the reliability of the results of the present research, especially in the composition tasks.

12.8. Results of the comparison tasks (Part 1)

113 participants (all 12 in Group M and 101 in Group N including all 10 in Group T) performed the first part of the comparison tasks. The results are listed in Tables 12, 13, 14, and 15. The numbers of all participants who judged a dictionary as the best or the worst are given in Table 12. Apart from these overall results, the numbers of the participants who are considered to have understood the meaning of each word are given in Table 13, as the latter evaluation is more reliable in many cases.

As might be expected from the data presented in Tables 10 and 11 the “definition” is the most frequently selected reasons for both the best and the worst entries. This is not surprising, as 57 out of the 79 participants who had used a monolingual dictionary did so to look up meanings the most frequently, while 10 rated looking up meanings as the second most frequent use. However, the “example,” which follows in the order of importance for the best entries, falls third among the worst entries. “The difficult example” is outnumbered by “insufficient information” in this study and not by “the lengthiness of the entry” as in Dohi et al. (2002: 79), which is the only difference between the two studies regarding the order of the reasons for a judgment. This difference can presumably attributed to the nature of the confirmation of a participant’s understanding of the

<table>
<thead>
<tr>
<th>word to look up (n=number of participants who looked up)</th>
<th>the best</th>
<th>the worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>leaf v (n=113)</td>
<td>LDOCE4</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>LDOCE2</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>COBUILD4</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>LDOCE4</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>LDOCE2</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>COBUILD4</td>
<td>61</td>
</tr>
<tr>
<td>abolution (n=112)</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>73</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>baptize (n=113)</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>circulation (n=106)</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>headlong (n=109)</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>distribute (n=110)</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>51</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>58</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>
meaning of a word: an oral and loose confirmation in the former as opposed to a written and concrete one in the present tasks, in which the participants must have felt the need for more information at the expense of the whole entry being lengthened. As regards the effects of the colors, few participants expressed their preference for the color version over the black and white one.

12.8.1. We will now focus on each task in detail. Only the evaluation by those participants who understood the meaning of the target word is taken into account from this section up to 12.8.6. Leaf (v) is the only target word common to both studies, and as in Dohi et al. (2002: 79), LDOCE2 was the most popular and COBUILD4 (COBUILD3 in the previous study) was the least. As regards the reasons, 3 in Group M provided the “definition” and 1 provided the “example.” 23 in Group N provided the “definition,” and the “example” provided by as many. This disproportionately heavy dependence on examples (and even the popularity of LDOCE2) is simply attributed to the similarity between the example in LDOCE2 and the target sentence. These results reconfirm the significance of providing examples that occur with a high frequency, which reassured users, particularly those whose proficiency level is not very high. The dictionaries analyzed (LDOCE4 in the present analysis and LAAD in the previous one) did not receive an uncharacteristically high evaluation.

12.8.2. Although an approximate or unidiomatic translation was considered to be a confirmation of the participants’ understanding of the target words, one-third of the participants were regarded as unsuccessful in grasping the meaning of absolution, which is perhaps due to its specificity to the Christian religion. The simple definition in COBUILD4 was highly evaluated by 18 (including 4 in Group M), while its example (which does not appear to be easier than others) by 15 (all belonging to Group N). This was rivaled by LDOCE4 in popularity with an unusually large number (10) of participants appreciating the abundance of information, 18 for its definition, and 10 for its example. On the other hand, LDOCE2 was criticized by 31 for its insufficient information, by 16 (including 2 in Group M) for its difficult definition that contains a word not listed in the defining vocabulary, and by 15 for its example, assumedly because it is abstract in nature.

12.8.3. The word baptize, another Christian term, was understood by many more. The simplicity of the definition in LDOCE4 was supported by 23, as well as for its extensive information by 20, and its concise examples by 14. More participants favored COBUILD4 mainly because its definition is simple (expressed by 26 participants), and it is the only definition here that does not contain baptism. But at the same time, COBUILD4 was judged to be the worst by the largest number due to wordiness in its sentence definition (by 19), and the length of the entry (by 17). One in Group M, who judged it as the best for its definition, criticized the same definition on the ground that “the truly important part of the definition (become a member of the Christian Church) does not appear at the beginning,” and another in Group M, who judged it as the worst for its lengthiness, argued that its entry is “too long for those who only need information on the word in a skeletal outline, and not very helpful for those who are unfamiliar with Christianity.”

12.8.4. Information required for solving the problems in Task (4) is not very accessible to participants: in LDOCE4, it is presented in the last section of the article (sense 5 in circulation/out of circulation); in LDOCE2, it is provided indirectly in one of its examples as “She’s out of circulation (= not taking part in social life) . . . ” without mentioning its antonym that is relevant to the task; and no relevant information is available in COBUILD4. As a result, only 9 in Group M, 3 in Group T, and 31 others understood the target sentence, 3 of whom in Group M pointed out that COBUILD4 did not provide necessary information. Most others mistakenly related the target sentence to the woman’s blood circulation, health, or club activity, or failed to translate the word. Their poor performance at this question strongly supports the arguments presented by Tono (2001: 161), who convincingly concludes that users “tend to choose the first definition.”
12.8.5. With respect to headlong, LDOCE2 was highly praised by 46 participants, 26 of whom appreciated its definition, 20 the conciseness, 11 its examples, and 3 the abundance of information. The conciseness of the entry was the second priority only in this task. Presumably the comparison was attempted mainly on the basis of the length of the entries and the simplicity of the definitions, as none of the dictionaries provide the collocation drive headlong as in the target sentence. The word counts of both definitions applicable to the target sentence are as follows: 6 (sense 1) and 6 (sense 2) in LDOCE2, while they are 15 (senses 1) and 8 (sense 3) in LDOCE4, and 13 (sense 1) and 15 (sense 3) in COBUILD4. This illustrates the disadvantage of sentence definitions in COBUILD4 and (part of) LDOCE4. For the purpose of a mere translation, a one-word synonym will suffice, and the subdivision of the two senses may not be necessary. LAAD unifies them as “1 to start doing something too quickly, without thinking carefully about it first.” But a deeper understanding of the meaning involves immense issues.

12.8.6. The entry for diatribe in LDOCE2 was criticized by 45 participants, 40 of whom selected “insufficient information,” 6 “the definition,” 1 “example,” and 3 stated that the lack of any example was problematic.

The entries in the other two dictionaries differ in that the distinctive features of a diatribe are expressed by angry and critical in COBUILD4, and criticize and severely in LDOCE4 (if long is negligible), with the former containing the most simple word of these, angry, which is considered to enhance the comprehensibility of COBUILD4’s definition. A minor point to note is that 2 participants in Group N considered the register label formal as part of the definitions in LDOCE2. Although there were only 2 who explicitly translated it, we suspect that quite a few were bothered by this. It is not easy for people who use non-alphabetical languages such as the Japanese to distinguish between roman and italic text. In this case, the use of parentheses would have been helpful.

12.8.7. Tasks (1), (2), and (3) in Part 1 have an additional question that the participants answered after the completion of Part 2. With regard to the additional question in Task (1) (Question (1A) hereafter), 18 participants were bothered by the use of parentheses under leaf2 v in LDOCE2, 45 found the information within the parentheses helpful, while 42 others disregarded it. Additional information in the definitions in LDOCE4 is anticipated to be preferred to a similar extent (see 4.2.2.). No peculiar difference was found in the answers provided to Question (1A) among the groups.

12.8.8. Answers to Question (2A) are shown in Table 16.

<table>
<thead>
<tr>
<th></th>
<th>Group M (n=12)</th>
<th>Group N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group T (n=10)</td>
<td>others (n=90)</td>
</tr>
<tr>
<td>those who were troubled</td>
<td>5 (42%)</td>
<td>3 (30%)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>those who welcomed it</td>
<td>0</td>
<td>19 (21%)</td>
</tr>
<tr>
<td>neither</td>
<td>7</td>
<td>58</td>
</tr>
<tr>
<td>no answer</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Of the 12 participants in Group M, 5 (42%) pointed out the lack of substitutability of the definition for the target word and other problems listed in 4.5. But the lower the participants’ proficiency was and the less they had been exposed to English and dictionaries, the less they tend to be troubled by the grammatical problems and the low substitutability. This trend is observed from the percentages of those who were troubled — a downward curve from Group M through Group T to others in Group N.

12.8.9. The answers to Question (3A), listed in Table 17, bear a similarity to those to Question (2A) concerning the relations between the groups and the percentage of negative answers.

Apart from the downward curve, which is not as clearly indicated as in the previous table, Table 17 shows that no participants regarded it as favorable that all the three dictionaries provide examples in a sentence pattern (such as was baptized Roman Catholic, was baptized Jane) that differs from that of the target sentence (was baptized as a Christian), but
that only a few made an effort to stop and think about the difference. It may be safe to state that in L2/L1 translation users at a lower proficiency level and with less exposure to dictionaries do not normally pay much attention to grammatical details.

12.9. **Results of the comparison tasks (Part 2)**

Part 2 of the comparison tasks focused the attention of 102 participants on definitions in LDOCE4 and LDOCE3, although a few of them did not express their preference in some of the tasks.

The below tables indicate that the definitions in LDOCE4 are preferred by more participants in all cases. However, this result should be analyzed with great care. In the case of *abbreviate*, those who preferred LDOCE4 slightly outnumber those who did not, and the percentage of correct translation (of either the definition or an example) was higher with LDOCE4. However, among the 39 who were required to translate the definition itself rather than an example that is common to both editions (‘*Information technology* is often abbreviated to ‘IT’), 5 out of 20 misinterpreted the definition in LDOCE4, while 3 out of 19 misinterpreted that in LDOCE3.

<table>
<thead>
<tr>
<th>Table 17 Participants’ evaluation of examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>那些 who were bothered</td>
</tr>
<tr>
<td>那些 who favored it</td>
</tr>
<tr>
<td>neither</td>
</tr>
<tr>
<td>no answer</td>
</tr>
</tbody>
</table>

During the analysis of the results concerning other target words in 12.9., answers by those who misunderstood the target words were not taken into account. As in 12.8., even those who made a rough or unidiomatic translation were judged as successful in grasping the meaning. It might be surprising that the “*when*” definition under the entries for *knockout* and *settlement* was not disliked. As regards *knockout*, 67 preferred the definition in LDOCE4, 22 of whom criticized the use of “*an act of*” as difficult or incomprehensible. Those 67, who were regarded as successful in understanding the definition at least vaguely, include 24 who were of the opinion that *when* only introduced the clause “a boxer hits his opponent so hard,” implying that the definition could be interpreted as “When a boxer hits his opponent so hard, he falls down and cannot get up again.”

They outnumbered 14 who are clearly regarded as having understood that the conjunction introduces the rest of the entire definition. Of these 11 concluded the translation with “…こと,” “…状態,” “…さま,” or “…場合” (all roughly synonymous with “a state of…”), and the first two of these translations are what Higashi and Urata (2005: 9) recommend as the Japanese equivalents of this use of *when*, although none of the 102 who undertook this task concluded their translation with “…行為,” which can be directly translated as “the act of…”

In the case of *settlement*, the “*when*” definition caused little problem either. But the popularity of the definition in LDOCE4 lies not so much in the use of *when* as in the additional information “especially in a place where not many people have lived before” with 22 pros and 3 cons. There was only 1 who expressed a preference for the definition in LDOCE3 since it is shorter.

### Table 18 Participants’ preference for a definition in the two dictionaries

<table>
<thead>
<tr>
<th>word to look up (n=number of participants stated their preference)</th>
<th>LDOCE4</th>
<th>LDOCE3</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>abbreviate</em> (n=96)</td>
<td>51 (53%)</td>
<td>45 (47%)</td>
</tr>
<tr>
<td><em>knockout</em> (n=100)</td>
<td>81 (81%)</td>
<td>19 (19%)</td>
</tr>
<tr>
<td><em>access</em> (n=99)</td>
<td>76 (77%)</td>
<td>23 (23%)</td>
</tr>
<tr>
<td><em>settlement</em> (n=92)</td>
<td>58 (63%)</td>
<td>34 (37%)</td>
</tr>
</tbody>
</table>
A considerable amount of discrepancy was also found in the preference for the definitions of *access*. 28 favored the use of the word *use* in LDOCE4, 27 others criticized the use of *by which* in LDOCE3, 17 of whom did both. Even all the 3 participants in Group M, who are expected to have enough command of English to understand by which, criticized the phrase as being difficult, probably for pedagogical reasons rather than for themselves.

12.10. Results of the composition tasks

In order to determine the number of participants who referred to each dictionary and gave the right answer to the composition tasks, the answers that were regarded as correct have been defined. In Task (1), the answers that included “look it up in a/your dictionary,” “look the meaning up in a dictionary,” “look up the meaning of the word in a dictionary” are regarded as correct, while the answers that included “look it up in a dictionary” were regarded as wrong. In Task (2) “cut,” “cut back,” “cut down,” and “cut down on” are all regarded as correct, regardless of the presence or absence of “the amount of.” In Task (3), participants needed to fill in the blank (in “Our country ______ a decreasing birthrate.”) with “face,” “is facing,” or “is faced with.” In Task (4), the answer should include “three pieces of furniture” or “three articles of furniture.” In Task (5), *forgive* (or *forgave* in the case of “The teacher ______ the student for coming late for class.”) is the only right answer.

Table 20. Number and percentage of the right answers of the composition tasks

<table>
<thead>
<tr>
<th>item to look up</th>
<th>LDOCE4</th>
<th>LDOCE2</th>
<th>COBUILD4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) look up</td>
<td>29/35  (83%)</td>
<td>28/36  (78%)</td>
<td>18/35  (51%)</td>
</tr>
<tr>
<td>(2) cut v</td>
<td>29/35  (83%)</td>
<td>31/37  (84%)</td>
<td>24/35  (69%)</td>
</tr>
<tr>
<td>(3) face v</td>
<td>27/35  (77%)</td>
<td>23/37  (62%)</td>
<td>21/36  (58%)</td>
</tr>
<tr>
<td>(4) furniture</td>
<td>8/34   (24%)</td>
<td>10/34  (29%)</td>
<td>10/33  (30%)</td>
</tr>
<tr>
<td>(5) forgive etc.</td>
<td>16/32  (50%)</td>
<td>16/32  (50%)</td>
<td>28/37  (76%)</td>
</tr>
</tbody>
</table>

12.10.1. As regards *look up* in Task (1), all three dictionaries contain an example sentence that is similar to the translation of the target sentence in Japanese. But there is a great discrepancy in the percentage of right answers between LDOCE4 and COBUILD4. In addition to the significance of providing examples occurring with high frequency reconfirmed by the result of the first of the comparison tasks (see 12.8.), lexicographers need to bear in mind that some users at an intermediate or a lower level of proficiency face difficulties transforming “Many people have to look up the meaning of this word in the dictionary.” (an example in COBUILD4) into “Look it up in your dictionary.” Excluding 1 (referring to COBUILD4), all the participants in Group M provided the right answer, whereas 3 in Group T and 27 others could not.

12.10.2. In Task (2), all the 11 participants in Group M, and 73 out of 96 in Group N (including 7 out of 10 in Group T) provided the right answer. 62 out of 84 who provided the right answer among the 107 who undertook the task (62/107 being 58%) wrote “cut down” or “cut down on,” whereas only 16 wrote “cut,” and 6 wrote “cut back.” The 62 participants who wrote “cut down (on)” include 21 out of the 29 who provided the right answer among the 35 who referred to LDOCE4 (60%). The signpost REDUCE at cut 1 and cut down in LDOCE4, which was appreciated by 9, greatly eased the strain that they would have otherwise felt in scanning this long entry to locate the item that they were searching. This accounts for the high percentage of correct answers with those referring to LDOCE4 (29 out of 35, 83%) in comparison with those referring to COBUILD4 (24 out of 35, 69%). The fact that “to reduce” appears at a conspicuous and accessible place in LDOCE2 (at the beginning of cut back 2 and at the beginning of cut down 3, in contrast to COBUILD4, where “reduce” is placed near the end of the definition of cut back and the verb is absent from the subentry for cut down) is assumed to be one of the reasons for the high percentage of right answers concerning those referring to LDOCE2 (31 out of 37, 84%).

For users confronted with the lengths of entries, we should not neglect the visual effects of conspicuous words, especially signposts and phrasal verbs in boldface, which were appreciated by many participants.
12.10.3. In Task (3), all the 10 participants in Group M, and 61 out of 98 in Group N (including 5 out of 10 in Group T) provided the right answer. The details of the right answers with respect to verbal voice are more interesting than simply the percentage of right answers. Table 21 shows the number and percentage of right answers in an active sentence (“faces” or “is facing”), right answers in a passive sentence (“is faced with”), wrong answers that include with in an active verb phrase, and other wrong answers out of all the answers provided by those consulting each dictionary.

Table 21 Details of the answers to Task (3) of the composition tasks

<table>
<thead>
<tr>
<th>dictionary consulted</th>
<th>right answers in the active</th>
<th>right answers in the passive</th>
<th>wrong answers including with in the active</th>
<th>other wrong answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDOCE4 (n=35)</td>
<td>20 (57%)</td>
<td>7 (20%)</td>
<td>4 (11%)</td>
<td>4 (11%)</td>
</tr>
<tr>
<td>LDOCE2 (n=37)</td>
<td>23 (62%)</td>
<td>0 (0%)</td>
<td>3 (8%)</td>
<td>11 (30%)</td>
</tr>
<tr>
<td>COBUILD4 (n=36)</td>
<td>9 (25%)</td>
<td>12 (33%)</td>
<td>2 (6%)</td>
<td>13 (36%)</td>
</tr>
</tbody>
</table>

From this table, we gather that over 50% of the participants read the entry in each dictionary with sufficient care. Those who consulted LDOCE4 outperformed the rest, as the necessary information pertaining to the task is highlighted in boldfaces either as a part of the examples or as collocations. In COBUILD4, users’ attention is drawn to both active and passive phrases by the use of boldfaces. But LDOCE2 neither highlights any necessary information in its definitions or examples nor provides any information on the passive nature of the phrase.

As LDOCE4 and COBUILD4 appear to possess similar microstructures (omitted due to a limitation in space), the difference in the participants’ performance can be explained by one of Tono’s (2001: 162) findings that users “did not read the whole entries but preferred to stop searching for the meaning as soon as possible,” and the following conjectures by us:

(1) It was easier to locate the necessary information in LDOCE4, because it is in the first sense in LDOCE4 in contrast to the fourth sense in COBUILD4, which begins 14 lines away from the headword.

(2) Many more participants consulting LDOCE4 chose the active verb phrase over the passive one, because most of the examples in the concerned sense are in the active, whereas in COBUILD4 one is in the active and the other is in the passive.

What happened to his subjects in using an English-Japanese dictionary in reception seems to have happened to our participants in production. However, a stricter empirical study is required for a strong validation of the above conjectures in order to provide indisputable confirmation of the significance of examples and their effects on writing in English.

12.10.4. Although all the 8 participants in Group M who used a dictionary provided the right answer, the least number and percentage of participants did so to Task (4). This is assumed to be due to the lack of information on how to achieve the plural form of the phrase a piece of furniture. Out of 101 participants 28 (28%) answered “three pieces of furniture” or “three articles of furniture,” referring to one of the three dictionaries, 11 of whom expressed their appreciation for examples, 4 for the labels ([U] in LDOCE4 and LDOCE2, and “N-UNCOUNT” in COBUILD4), and 1 for both. On the other hand, 21 wrote “three piece of furniture,” and the remaining 52 were unable to use piece and wrote a wrong answer such as “three furnitures” (s). In addition to criticisms such as “the dictionary should emphasize that furniture cannot be pluralized” by a participant in Group M, and “the dictionary should carry more examples and information on how to count, instead of the information in LDOCE2 that seems irrelevant for an average learner” by another in Group M, there were numerous complaints by participants in Group N who required information on the plural form of piece and by those who were unable to make an effective use of the examples or the label to translate the target Japanese sentence into English. Under these circumstances, a usage note, or even a warning note is called for.
12.10.5. Task (5) is the only task in this composition part where the participants consulting COBUILD4 performed better than the others. This can be attributed to the fact that in COBUILD4, the subordinate clause containing wrong appears in the first half of the definition, and that there are two words (bad and wrong) in COBUILD4 that the participants at a low level of proficiency could establish some connection with the situation described, whereas there is only one (wrong) in LDOCE4 and none in LDOCE2.

forgive v [LDOCE4] 1 to stop being angry with someone and stop blaming them, although they have done something wrong
[LDOCE2] to say or feel that one is no longer angry with (someone) or about (something); to say or feel that one no longer blames (someone) for (something)
[COBUILD4] 1 If you forgive someone who has done something bad or wrong, you stop being angry with them and no longer want to punish them.

In case our assumptions are accurate, it will be disappointing to see that the number of keywords and their position within a definition are given more importance than LDOCE's advantages of the traditional definition, in contrast to sentence definition, and of the number of examples that have the same sentence pattern as the English translation of the target sentence (two in LDOCE4, one in LDOCE2, but none in COBUILD4). A user's look-up skills do not always meet a lexicographer's expectations.

12.11. Concluding remarks for further improvements in the research design

Some of the improvements in the research design of the present study have been made in response to criticisms received by two former studies (Kanazashi 2001, and Dohi et al. 2002). The composition tasks have been newly added to assess the effectiveness of dictionary entries for productive purposes. The tasks have largely become more natural, eliminating artificial tasks that users would not face in their daily dictionary look-up, e.g. those requiring disproportionate attention to labels.

With all reservations, we believe that the present study has revealed some important aspects of LDOCE4. LAAD was reported to be generally less user-friendly than LDOCE2 in Dohi et al. (2002), but as the results of this study indicate, some of the features of LDOCE4 were preferred by many users. The additional information and enriched examples were widely appreciated. The shortcomings of the “when” definition, criticized by some reviewers, do not seem to bother the users to the extent that they fear (12.8.8. and 12.9.). Another instance of their indifference to details is reported in 12.8.9.

Admittedly, however, there still appears to be ample room for further improvements in some aspects of this study and for better methods to analyze the user perspective.

One might wonder why “translating English into Japanese” was the second most frequent occasion for using a Japanese-English dictionary for 24 participants (omitted from Table 8), and why 4 judged the entry for circulation in COBUILD4 as the best even though no relevant information is provided in its definition (omitted from 12.8.4.). Cases such as these lead us to suspect that the participants were unable to always accurately describe their look-up. A more direct method would have reduced the possibility of such seemingly inaccurate descriptions.

We should bear in mind that the seemingly popular COBUILD4 is the only dictionary in our study that does not mention that absolution is used in the Christian religion (12.8.2.) but nevertheless its simple definition was widely supported. Including this, many of the tasks in this study are based on translations that do not require a deep understanding of the word. The participants therefore preferred dictionaries that provided instant solutions as suggested in 12.8.5. This study should be supplemented by another type of research design which will enable us to examine the long-term effects of dictionary use. In keeping with Tono (2001: 75), “[i]deally we should conduct a longitudinal study of dictionary users,” although it will remain to be a mere ideal unless we are able to find participants who will cooperate with us over years of study.

Irrespective of the findings that indicate that crucial information should be placed near the beginning of the entry (12.8.4., 12.10.2., and 12.10.3.), we must admit the limitation of a printed dictionary, where providing
many examples and shortening the entry are fundamentally incompatible. For those who are not keen enough to read the examples under the first sense and are unable to reach the signpost of the second sense, there are two alternatives: the menu at the beginning of an entry as in LDOCE3, and an electronic dictionary in which users may scan the definitions beforehand and then click on an option to read the examples. The next task that encounters us is to compare the accessibility to information of these three ways.

The present user research has largely focused on nouns and verbs, as we would like to treat the sentence definitions of adjectives independently. On the basis of the results of his user research on definitions of adjectives, Kishi (2004: 87) concludes that it is not necessary to define the adjectives in the form of the sentence definition due to some problems from the user’s point of view. A study that incorporates both his and our research designs is required in the future.

A more stringent comparison, as suggested in 12.10.3., will be enabled by comparing an entry in an existing dictionary with a fabricated entry whose definition or example differs from an existing one in only one respect, other conditions being equal. As argued by Tono (2001: 165) in the summary of his experimental test on L2/L1 translation, “a more rigorous experiment of this [artificial] kind should be conducted along with more ethnological, qualitative research in a naturalistic setting of dictionary use,” which we also anticipate as a supplement or replication of this study, thus overcoming one of the limitations of user research that Hartmann (2001: 94) mentions: “Hardly any [studies] have been replicated by others, to verify assumptions and findings . . . .”

(T. Kanazashi)

13. Concluding Remarks

It is true that language is a living thing and evolves with time, with new words being created and old ones altered or discarded. So if dictionaries are to show the latest state of a language, they are fated to be revised in order to remain in use and LDOCE is no exception. It has been revised three times, with a new version being released every seven or eight years.

But revision must not be revision for its own sake. It must be a revision that meets the new needs of the users. Whether LDOCE4 has been improved to meet them or not may have become apparent in our analysis. Here we will give a summary of each chapter as our concluding remarks.

As we have seen in section 2, headwords and derived words have been increased considerably — we can probably say “substantially” if we take words contained on the CD-ROM into consideration — in LDOCE4, and in that regard LDOCE4 should meet the needs of most users including advanced learners of English. However, if LDOCE4 really strives to be the ideal EFL dictionary for advanced level users, it should seriously consider what advanced learners want to search for with the help of LDOCE4.

Concerning pronunciation, there has been little revision in the printed edition except for the introduction of a dollar sign to precede American pronunciations and the scheme for indicating stress on compounds. The CD-ROM offers recorded pronunciations in British and American English, which will be of great help to learners of English. It is regrettable, however, that there are cases of discrepancy between transcriptions and recorded pronunciations. We would hope that recordings will be done more carefully for the next edition.

Many revisions concerning definitions have been carried out, most of which are expected (and found by our user research) to enable the users to understand the headwords easily. Some headwords are plainly defined using the “when” definition, although this defining style is objectionable from a grammatical and lexicographic point of view. Signposts are generously treated in the new edition, but there is room for improvement as regards the list of defining vocabulary.

We have analyzed some of the features of examples in LDOCE4. The examples have not only increased by 40% but also undergone rather extensive modifications of several different types. Our general impression of the revised examples is that they satisfy the users’ requirements to a greater extent than its predecessor, avoiding difficult words, clarifying the context, explaining the figurative use in lucid words and providing appropriate collocates.
Language notes are included as a middle matter in LDOCE4. Eight topics are explained in the Language Notes: Articles, Modal verbs, Phrasal verbs, Idioms, Writing, Linking ideas, Pragmatics and Collocation. More than half of the topics that are explained in LDOCE2 are not taken up as topics in LDOCE4. However, the reason why most of the topics in LDOCE2 are omitted in LDOCE4 has not become clear from our analysis.

There are two new types of language notes in LDOCE4. They are Writing and Linking ideas. The former explains how to write various documents such as letters, emails, curricula vitae or resumes. There are also samples of a CV and resume in the back matter of the dictionary. The latter explains the use of sentence connectors in order to maintain coherence when writing essays. These two Language Notes seem to be written based on the data from the Longman Learners' Corpus.

There is not any explanation on the purpose of including the Language-Note section in LDOCE4 after omitting it in LDOCE3. As shown in our analysis, the Language Notes in LDOCE4 are quite different in their quality compared to those in LDOCE2. We cannot help but have the impression that pragmatic matters, which should be the primarily focused item dealt with in the Language-Note section, are not fully discussed in the Language Notes in LDOCE4.

The presentation of grammatical information in LDOCE3 and LDOCE4 differ only slightly. The codes and patterns are almost the same in both editions. It is appropriate to say that explicitly spelled-out presentations of grammatical information seem to be on the right track from the view of user-friendliness. Visual impact of the dictionary pages is also reinforced with the use of new signs.

The effort to provide the users with as many collocations as possible is outstanding in LDOCE4. Especially the collocation boxes play an important part in giving a visual impact to the most frequently used collocations.

In contrast to the presentation form applied in OCDSE, the collocations are presented in the form that is closest to that used in actual speech or text. That is, the collocations are mostly presented in actual phrasal forms. Therefore, not only the number of but also the presentation form of the collocations should be appreciated positively.

According to the introduction of the dictionary, the users have access to an even larger number of collocations in the Phrase Bank on the CD-ROM.

WORD FOCUS, as is claimed by the editors of LDOCE4, has incorporated a lot of useful information for learners of English. Therefore it has definitely contributed to the improvement of the latest edition, LDOCE4. WORD CHOICE has also been much improved in that the explanations there have become more concise and understandable. However, just listing the synonymous words cannot be deemed as useful as it is intended to be. Most users would certainly like to see the differences in nuance of words listed there.

As for illustrations, there has been a certain change in the choice of entry items to be illustrated. In the printed edition, most of the illustrations are shown in pairs or groups, so that the differences between similar objects are understood. We appreciate this scheme and hope that it will also be included in the CD-ROM, together with other elaborately designed illustrations included only in the printed edition. While plenty of photographs have been introduced into the illustrations in both editions, they are not always used effectively. Careful choice of illustrations is desirable for a dictionary which has come to attach much importance to encyclopedic information.

Additional information available only in the CD-ROM can be highly valued, and accessibility to information is easy in general. On the other hand, inconsistencies stand out in many respects, and a more flexible and usable search function should be offered. Usability of the program also has many points to be improved. Our conclusion is that this version has not yet used the electronic medium to its fullest benefit.

Our user research was rigorously enhanced and encouraged by criticisms of previous studies and by many participants who attended the researcher's weekly lessons in which they had been trained to use a monolingual English dictionary. The findings imply that the use of difficult words outside the range of the defining vocabulary should be avoided; vital information, not only distinctive features in definition but also collo-
cations and examples, should be placed near the beginning of an entry or at least be made conspicuous; and few users are concerned about minor details of definitions or examples. The visual effects of conspicuous words were also confirmed. Since the assumption that the users appreciate both concise entries and extensive information has been supported and since the entries with no examples and definitions involving lexical or grammatical complexities have been severely criticized, the lexicographers should take greater care in describing distinctive features in definitions and selecting appropriate examples.

NOTES

1) Out of 81 words 12 words are treated as derived words in LDOCE4, and 6 words are contained as examples or definitions in OALD6.

2) Out of 19 words 6 words are treated as derived words in OALD6, and 2 words are contained as examples or definitions in LDOCE4.

3) Out of 91 words 18 words are treated as derived words in LDOCE4, and 2 words are contained in the examples in CALD.

4) Out of 46 words 8 words are treated as derived words in CALD, and 8 words are contained as examples or definitions in LDOCE4.

5) Out of 117 words 18 words are treated as derived words in LDOCE4, and 6 words are contained in the examples or definitions in COBUILD4.

6) Out of 19 words 2 words are derived words in COBUILD4, and 3 words are contained as examples or definitions in LDOCE4.

7) Abatement is contained as a headword in COBUILD4 and as a run-on derivative in OALD6 and CALD.

8) In most of the cases, the two patterns used to be given together without any indication as to British or American in the previous editions.

9) As pointed out in 3.2.2., the pronunciations given in the CD-ROM are different from the first variants in the transcription.

10) Strangely, they are pronounced as /po:/ and /fu:/ in the CD-ROM of the previous edition. Considering the fact that the pronunciations /po:/ and /fu:/ were newly adopted in the previous edition, the recording of these words must have been done more carefully. The recorded American pronunciation corresponds to the preferences shown in LPD2.

11) The recorded British pronunciation corresponds to the preferences shown in LPD2.

12) The term 'diphthong' is not used here in a strictly phonetic sense. As defined in LDOCE4, it seems to mean 'a vowel sound made by pronouncing two vowels quickly one after another'.

13) It seems to be forgotten that the first variants for sure and poor given in LDOCE4 are /po:/ and /fu:/, not /fu:/ and /po:/. If the system has been repaired.

14) We have taken into account even minute modifications in the definitions, with the exceptions of the change in singular/plural form, and the presence/absence of etc or a comma.

15) A musically versed user might find it equally regrettable that the only example under sextet n (Brahm's [sic] sextet in B flat) in LDOCE3 has been replaced by Mozart's sextet in B flat. It is true that Mozart composed sextets in B flat (K. 240, K. 270, K. 287), but they are generally known as divertimenti in B flat. His only piece that is known as a sextet (the famous "Dorfmusikanten-Sextett") is in F. The popularity of pieces should take priority over the popularity of proper nouns.

16) Through communication with Mr. Michael Rundell, who was the Managing Editor of LDOCE3, the information on the omission of Language Notes in LDOCE3 was obtained.

17) The matters that are related to the topic Requests is also mentioned in the Language Note titled Modal Verbs.

18) According to Dr. Rosamund Moon's paper in the International Journal of Lexicography Vol. 17 no. 2, the idea of explaining the use and meaning of idioms in terms of metaphor was suggested by Mr. Michael Rundell, Editor-in-Chief of Macmillan English Dictionary for Advanced Learners, and was put into practice by Dr. Rosamund Moon who created the Metaphor Boxes. For more information on the process of analyzing idioms in terms of metaphor, readers are recommended to refer to the paper.

19) We have found two misprints in two collocation boxes in LDOCE4. The first one is in the collocation box in the entry for the noun knot. The definition b) is accidentally printed at the bottom part of the collocation box where only example sentences are supposed to be listed.

20) The same kind of misprint is in the collocation box for the noun organ. The definition b) is accidentally included in the bottom part of the collocation box.

21) The use of different terms is one example which shows the lack of unity in descriptions in LDOCE3.

22) In the illustration accompanying backhand, a photograph of a man holding his racket forehand is titled backhand.

23) In the illustration accompanying backhand, a photograph of a man holding his racket forehand is titled backhand.

24) As discussed in 11.7., it is doubtful if the CD-ROM edition contains as many as 1,499 (or 1,500) illustrations because some are used for several entry items, as in the case of ear, eye, face, grin, happy, nose, and tooth.

25) In the case of accident, neither of the two photographs is self-explanatory.

26) If we try to see illustrations for words related to bite, we will end up with a flow of items related to bit, instead of bite.

27) There are a few cases where this rule is not observed as in block.

28) There are several unexplained occurrences of "untranslatability" as in [untranslatability] found in brush, where "adv/prep" is not spelled out. This may be due to some error in the data.

29) It is possible to compare two entries using what can be called the "secondary definition window" (See Figure 6) which appears when a word is double-clicked or selected, right-clicked, and "Look up expression" is chosen from the right-click menu in the original entry. This secondary definition window consists of two sub-windows, the upper one displaying the entry, and the lower one listing the same candidates (if any) which appear when the word is searched for in the basic search. What is to be improved about this secondary
definition window is that the upper sub-window always displays the first entry of the candidates; the entry dance (noun) appears even if when danced is selected in the original window.

30) There are some cases in which highlighting does not work such as when the target is "psych somebody v ➔ out" in psych.

31) The automatic suggestion correctly works for words such as color whose American spelling is included as an entry item in the printed edition.

32) The IPA transcriptions can be automatically displayed by enabling the option "Show pronunciation" in the "SETTING" menu. The same goes for the pronunciation.

33) For the "Words used with" collocations, the criterion of their inclusion is not explicit, but it seems that many of the boldface phrases following the sense numbers, common collocating particles such as "[on]", phrasal verbs, and boldface parts in examples constitute this category. This is why some words are also included in the above two categories.

34) For the sake of brevity, only the mean values regarding the bilingual dictionaries are listed in Tables 7 and 8.

35) For the sake of brevity, only the mean values regarding English-Japanese dictionaries are listed in Table 10.

36) Lea and Runcie (2002: 823) argue that "it is the acquisition of these medium-strength collocations [that fall into the "slightly less fixed/fairly open" categories] that is the real key to greater fluency for the intermediate learner."

37) It is difficult to compare the results of the two studies, since Table 6 in Dohi et al. (2002: 73) excludes the answers by those who had not used a monolingual dictionary. If they are included, the mean frequency is 9.1 with meaning, 5.1 with collocation, and 4.9 with grammar. This indicates that their participants did not refer to information categories other than meaning as frequently as those in the present study.

38) Note that the purpose of the comparison tasks is not to assess any dictionary as a whole but entries that differ from each other in some respects. Thus, it would not be advisable to calculate the total number of participants who judged a particular dictionary as the best. It should also be noted that some who looked up the words did not answer all the questions.

39) Hatakeyama (2001: 5-6) discusses this and related issues in a section entitled "Confusion between Letters Printed in Different Styles."

40) In accordance with our grading policy that is not too strict, those who answered "The country are facing/faced..." were judged as correct, and the presence or absence of "the problem of" did not matter, although a mistake in the choice of the preposition was out of our permissible range.

Dictionaries


REFERENCES


An Analysis of *Cambridge Advanced Learner’s Dictionary*

KAORU AKASU
TAKEHIKO MAKINO
AKIHIKO KAWAMURA
YUKIYOSHI ASADA

1. Introduction ............................................. (127)
3. Pronunciation ........................................... (143)
4. Definitions ............................................. (146)
5. Grammatical Information ................................ (166)
6. Examples .................................................. (174)
7. Conclusion ................................................ (178)

1. Introduction


One of the first things that attract our attention is that *CALD* has become much smaller in its volume. The number of pages of *CALD’s* main A to Z part is 1490, whereas *CIDE’s* main part had 1701 pages, a reduction of more than ten percent. Naturally, this leads one to wonder what kinds of changes have been made in this new dictionary. A first glance will show that such features as “Language Portraits” and “False Friends” have been done away with in this revision. This may account for