Beteckning:_____

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Readability
- an Analysis of English Textbooks for Swedish School Years 7-9

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Abstract

The purpose of this study was to analyze texts from four English textbook series for Swedish school years 7-9 as regards their readability and to investigate whether the text difficulty progresses within series with grade level and with each assigned difficulty level. The study also wished to make comparisons between these textbook series to determine if they are equivalent as regards their average readability level. The readability formulas Flesch Reading Ease and Flesch-Kincaid in Microsoft Word 2007 was used for calculation of the readability grade levels of a selection of 231 texts from the series *Good Stuff*, *Happy*, *Time* and *Wings*. The results from both formulas indicated that the texts in general become more difficult for each school year and with assigned level. However, the study showed that there are differences among the four series as regards their average difficulty levels and that there is a great difficulty range among texts.

Keywords:

English textbook series, Flesch-Kincaid Readability Formula, Flesch Reading Ease Formula, Readability

Preface

I would like to thank Thomas for his great support.

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1 Introduction

How comprehensible written texts are has interested linguists and teachers for a long time. Because of the numerous English textbook series available to choose from for Swedish compulsory school teachers, it would be interesting to compare such series as regards their comprehensibility. One way to do this is to focus on the readability in a selection of these books, which is what this study does.

According to the Oxford English Dictionary (2010), readability is defined as "ease with which a text may be scanned or read". For experts in the field of reading, however, the term *readability* is more specifically the "problem of matching reader and text" (Gilliland, 1972: 12) and it suggests the difficulty level of a written text by "an objective numerical score obtained by applying a readability formula" (Fry, 2002: 286). These latter definitions of readability will be used throughout this essay.

1.1 Aim and Scope

This study compares texts taken from four different English textbook series for school years 7-9, one series from each of four major publishing companies in Sweden, as regards their readability. The readability has been calculated with the Flesch Reading Ease formula and the Flesch-Kincaid Readability formula, which both measure word and sentence lengths. Other textual features and reader aspects that may affect text comprehension have not been included in the study. The main purpose of this essay has been to answer the following theoretical questions:

1. Is there, according to these readability formulas, an increase in the average readability score of texts within each of the textbook series from school year 7 to 9?
2. Are the average readability scores comparable between the four different textbook series?
3. Do these readability formulas suggest that the average readability scores of texts within the leveled textbooks increase with text level?

1.2 Readability

1.2.1 The Development of Readability Formulas in Short

The classic readability studies started as early as in the late 19th century (DuBay, 2004: 10) and the first formula to measure readability was published in 1923 (Fry, 2002: 286; Klare, 1988: 15). Since then, more than 200 different readability formulas and more than 1000 studies in the field have been published (DuBay, 2004: 2). However, of these formulas, only 12, at the most, are widely used (Gunning, 2003: 176).

At the time of the first readability formula, readability studies were generally focused on "vocabulary aspects such as difficulty, diversity and range" (Chall, 1988: 6). Starting in the late 1920s, focus shifted towards examinations of numerous different aspects which were believed to be possible variables of text difficulty (Chall, 1988: 6). Over the years these variables have been reduced into semantic and syntactic factors, leaving stylistic factors aside (Klare, 1988: 16). Still today, the majority of the established readability formulas test the comprehension of a text by using only a combination of the two components *syntactic* and *semantic difficulty;* the former often measured by average sentence length and the latter often measured by word length (counting letters or syllables) or frequency of unfamiliar words (Davison & Green: 2; Fry, 2002: 287; Gilliland, 1972: 84; Gunning, 2003: 176). These variables were already from the very beginning of readability suggested by Sherman to be predicators of text difficulty (DuBay, 2006: 2). Out of numerous statistically measurable factors, they are also the two that in studies have correlated the best with readers' understanding of texts (DuBay, 2006: 42; Gray & Leary, 1972: 115-116; Gunning, 2003: 175).

In the last decade focus within school has been on leveling systems, which are based on more aspects of the text than the language itself (Stein Dzaldov & Peterson, 2005: 222). However, readability formulas are still alive and offer a more objective alternative as they can be calculated by computers (Fry, 2002: 287-289).

1.2.2 Why Readability Formulas?

Many studies have shown the importance of matching students with suitable texts at their individual levels to facilitate and enhance their learning and even to motivate the students (Gunning, 2003: 175). Such a match is supposed to enable students' "optimal learning gains" (Zakaluk & Samuels, 1988: 140). Gilliland (1972: 12) also concludes that appropriately challenging texts ease both understanding and learning. McCormick (1995) accounts for three different levels for students' understanding of texts:

	Words recognized	Text comprehension
Independent level	96-100%	90-100%
Instructional level	90-95%	70-89%
Frustrational level	0-89%	0-70%

(Freely from Burns, 2006: 34)

Students need material at both the independent and instructional levels to use in different situations (Burns, 2006: 34). Gunning (2003: 182) also believes that such an independent level is preferable to the frustrational level.

To use readability formulas in order to match a text with its reader is also in alignment with Vygotsky's Zone of Proximal Development (DuBay, 2004: 54; Fry, 2002: 291), especially if students receive material "slightly over their current level of development", which is what experts in reading recommend for instructional reading (DuBay, 2004: 56). However, the students' motivation is imperative for understanding (Fry, 1988: 87) and can make a student understand a text well above his normal capacity (Fry, 2002: 289). This is why Gunning (2003: 184) stresses that it is mainly materials that the students are *required* to read that need matching. Two studies from the 1970s support this by showing that readability is most significant for uninterested readers (DuBay, 2004: 29).

Such a matching has, since the beginning of readability studies, been the main purpose of the field (Fry, 1988: 78). Gunning (2003: 175) points out that the matching can be done in several different ways but that every method has its benefits and its shortcomings. Studies have shown that readability formulas "correlate well with comprehension difficulty as measured by reading tests" (DuBay, 2004: 15). Davison

(1988: 36) states that "there are no simple, convenient alternatives [to readability formulas] that would assign more accurate levels". DuBay (2004: 3) even asserts that they are the only objective method for determining the difficulty of written texts.

The use of readability formulas are therefore the most common method (Gilliland, 1972: 89; Gunning, 2003: 175). In fact, readability formulas are used by 89% of the textbook publishers in the USA in order to estimate the reading grade level of their texts (DuBay, 2004: 55-56). Such books are generally "written at least on grade level" (Gunning, 2003: 184). That readability is important for written educational material is also indicated by the results from a study by Klare from 1973 which showed a correlation between the Flesch Reading Ease scores of the material and "the probability of students completing the course" (DuBay, 2004: 31).

Readability formulas are sometimes used when writing texts, in order to adapt them to a broad reading audience (Fry, 2002: 290; Gunning, 2003: 184; Vogel & Washburne, 2006: 18). The importance of considering readability is evident in that "many best-selling adult novels are written at the eighth-grade level" (Fry, 2002: 290). However, readability formulas do not consider all factors involved in the "production of readable writing" (Klare, 1988: 27). Therefore they are not recommended to use as guidelines for writing, but more appropriate to use at the end of the writing process (Chall, 1988: 11-12; Fry, 1988: 91-92; Hall, 2006: 69; Klare, 1988: 32).

The formulas are also used within other fields where reading comprehension is essential. That there is such a need is suggested by indications that American adults in general read "at the 7th grade level" (DuBay, 2004: 1). For instance readability researchers have assisted in decreasing the readability of "front-page stories" in newspapers (DuBay, 2006: 98). In addition, several states in the USA have laws that control the language in important public documents to ensure comprehensibility of vital written information (DuBay, 2004: 55; Fry, 1988: 78).

1.2.3 Advantages and Limitation of Readability Formulas

The main strength of readability formulas is that they are relatively easy to use; an applicability which has increased with the development of computerized programs (Burns, 2006). Another strength is that the formulas are highly validated through many studies (Fry, 1977, cited in Fry, 2002: 291). They are also objective (DuBay, 2004; Fry, 2002). Worth noticing is however that "different methods used by different computer programs to count sentences, words, and syllables can also cause discrepancies – even though they use the same formula" (DuBay, 2004: 56).

Although the most common readability formulas correlate well with each other, occasionally they disagree as much as three grade levels (Gunning, 2003: 183). This inconsistency between formulas is partly explained by their different starting points (Klare, 1988: 31). However, even though formulas may not provide exact difficulty levels for individual texts, they are better at indicating the progression of difficulty level between texts (Gunning, 2003: 181). Therefore some researchers argue that readability formulas are precarious for matching a specific text with any individual and that they should be used more generally (Anderson & Davison, 1988: 23; Bruce & Rubin, 1988: 19).

It is imperative to stress that readability formulas cannot "measure all the ingredients essential to comprehension" (Gilliland, 1972: 84). In order for them to do so they would be too complicated and neither objective nor easy to use. Some critics, such as Gilliland, state that "the accuracy of a measure decreases with its ease of application" (1972: 84). However, others claim that there is scientific evidence "that the addition of attributes does not increase the reliability of the formulas" (Binkley, 1988: 117). Klare states that a formula with more than two variables "usually increases effort more than predictiveness" and that formulas with two variables thereby are sufficient for "rough screening" (1988: 31).

That readability formulas have always been limited is a fact known to all readability researchers (Davison & Green, 1988: 2; Fry, 2002: 289; Gunning, 2003: 180). Even L.A. Sherman, who is considered to have started the classic readability studies in the late 19th century, stated that the readability of a text depends on the

reader (DuBay, 2006: 3). Bruce & Rubin (1988: 20) agrees that the "ultimate judge of readability is the reader, not a formula".

Readability formulas cannot, nor are they designed to, assign exact values of comprehensibility; instead they offer numerical approximations of text difficulty (Binkley, 1988: 117; Bruce & Rubin, 1988: 21; DuBay, 2004: 56). Therefore the formulas need to be used carefully and also generally be complemented with other methods in the process of choosing appropriate texts (Gunning, 2003: 182; Klare, 1988: 32). The readability formulas also "become poorer predictors of difficulty at high grade levels (especially college) where content weighs more heavily" (Klare, 1988: 31). Furthermore readability formulas imply that "the reader's skill in dealing with increasingly difficult words rises in the same proportion as his skill in dealing with increasingly difficult sentences", which need not be the case (Gilliland, 1972: 98).

One limitation of formulas is that they only focus on text features and ignore the cognitive process (Zakaluk & Samuels, 1988: 122). Also excluded from formulas are specific internal factors such as the reader's social and cultural background (Bruce & Rubin, 1988: 19) together with motivation, interests and previous knowledge (Afflerbach & Johnston, 1986, cited in Stein Dzaldov & Peterson, 2005: 223; Bruce & Rubin, 1988: 8; DuBay, 2004). Such factors cannot easily be integrated in the formulas (Klare, 1988: 30).

There are also many external, textual factors excluded from formulas such as text layout and the potential presence of visual aids (Burns, 2006), writing style, organization and exposition (Davison, 1988: 38) and "typographical factors" (Gilliland, 1972: 96). These might be easier to integrate in a formula. However, many of them are difficult to measure statistically, which means that the objectiveness of the formulas would get lost.

Another limitation of readability formulas is that they do not take deeper textual structures into account. It is important to remember that "a low readability score is no guarantee of true ease of reading" (Bruce & Rubin, 1988: 12). Instead it might render other comprehensibility problems. For instance formulas generate the same score, independent of whether the word order within a sentence is changed

(Chall, 1988: 10-11). Furthermore, an overextension of short words and sentences would render a low readability score but might result in an incoherent text (Bruce & Rubin, 1988: 12-13). Moreover, the lack of connectives may very well result in a confusing text but it would not be shown in the readability scores (Anderson & Davison, 1988: 32-33).

It is also essential to point out that longer words do not necessarily equal harder words (Anderson & Davison, 1988: 28; Gilliland, 1972: 96; Gunning, 2003: 176). Similarly, although there is in fact a "correlation in English between long sentences and complex sentences" (Davison, 1988: 43), a short sentence may be more complex than a longer one and thereby harder to understand (Davison & Green, 1988: 4; Fry, 1988: 8; Gilliland, 1972: 96).

1.2.4 A Focus on Two Readability Formulas

Two common readability formulas are Flesch Reading Ease and Flesch-Kincaid; both included in Microsoft Word's Spelling & Grammar (Microsoft Office Online, 2010).

1.2.4.1 Flesch Reading Ease

For his first formula from 1943 Rudolf Flesch used three variables (Flesch, 2006: 99). In order to make the formula easier to apply, he modified it and published his new, Reading Ease, formula in 1948 (republished as Flesch, 2006). According to that study, the new formula was only slightly less correlated with the criterion used for both formulas, namely a 75% comprehension of the McCall-Crabbs' *Standard test lessons in reading* (Flesch, 2006: 100-104). In other words comprehension was interpreted as getting 75% right on these tests on written texts. The formulas were to match a student's typical grade level with such a comprehension of texts with given individual readability scores (Flesch, 2006).

Flesch's new formula, the Reading Ease formula uses only two variables. The first one, *average sentence length in words*, remains from the original formula and had, according to earlier studies, been shown to measure sentence complexity indirectly. In a similar way, other studies had shown that the second variable, *average word*

length in syllables, indirectly measures word complexity (Flesch, 2006). Flesch (2006: 104) also concluded that this new second variable correlated well (.87) with the second variable used in his original formula (number of affixes) and was easier to apply.

Eventually, the Flesch Reading Ease grew to be the most common formula, at least for other than pure educational purposes (Klare, 1988: 20). Studies have also established it to be "one of the most tested and reliable" (DuBay, 2006: 97). However, one study indicates that readability formulas which are based on syllable counts underrate "nonfiction" texts and that this may depend on the particular terminology used (Gunning, 2003: 178). The Flesch Reading Ease has been shown to correlate very well (.98) with the Dale-Chall Readability Formula (Gilliland, 1972: 92), which in turn has been carefully validated and was the most common in schools for a long time (Klare, 1988: 18). Flesch's formula has also been validated against other formulas and against "expert judgment" (with correlations of .61-.84) (Gilliland, 1972: 92).

1.2.4.2 Flesch-Kincaid Readability Formula

In 1976, the Flesch formula was once again revised; this time in order for it to immediately generate a grade level. The study was ordered by the U.S. Navy and did not include Flesch himself (DuBay, 2006: 97). The new formula is now called the Flesch-Kincaid readability formula and is one of the Navy Readability Indexes (DuBay, 2004: 50). It is also called the Flesch Grade-Scale formula and the Kincaid formula (DuBay, 2006: 97). It "is widely used in industry" (Fry, 2002: 290).

A study by Klare shows a high level of agreement between The Flesch Reading Ease and the Flesch-Kincaid; they do not vary more than two grades and usually agree within a grade (Klare, 1988: 24-25). Flesch-Kincaid uses the same variables as the Flesch Reading Ease but the relationship between them has been altered.

1.2.5 Previous Research on Readability in English Textbooks in Sweden

A study by Björnsson and Tideholm (1974) uses the Swedish additive readability formula lix for determining the readability of English texts for Swedish schools. Lix

measures average sentence length and percentage of long words. Results from the study show that lix is an equally good predictor of text difficulty for English as for Swedish texts (Björnsson & Tideholm, 1974: 13). Furthermore the study shows that the readability in English Textbooks from that time generally increase with grade level. It also shows that the books in the study intended for "Särskild kurs" in English generally score higher than those intended for "Allmän kurs".

2 Method

2.1 Material

The sources studied were the four English textbook-series *Good Stuff*, *Happy*, *Time*, and *Wings*; all intended for years 7-9 in Swedish schools. A selection of 231 texts from these books was chosen for analysis. The sources were scanned with Brother DCP-117C and converted to text by the program ControlCenter2 for study in Microsoft Office Word 2007.

2.1.1 *Good Stuff*

The language in *Good Stuff* is modern and casual and the texts are labeled according to difficulty level; the green texts are easier than the yellow ones and blue texts are mostly dialogue (Liber, 2010). Word lists are always presented in connection with each chapter.

For this study the first green and the first yellow text from each chapter in *Good Stuff B* (Coombs et al., 2002), *Good Stuff C* (Coombs, Bayard & Hagvärn, 2003) and *Good Stuff D* (Coombs, Bayard & Hagvärn, 2004) was chosen. If a chapter does not consist of both these levels, that chapter was excluded from analysis. For a list of all analyzed texts, see appendix 2.

2.1.2 *Happy*

Happy has texts at three different levels of difficulty; A, B and C (Gleerups, 2010). Word lists are always presented in connection with each chapter.

Happy Textbooks No. 1-3 (Peterson et al. 2004, 2005, 2006) were incorporated in this study. In these books the first text at each level of each chapter was chosen. Chapters which do not consist of all three levels were excluded from analysis. For a list of all analyzed texts, see appendix 3.

2.1.3 *Time*

The books in this series each have a basic course with texts on A and B level. As a complement there are Tracks at the end of each book for further reading. Texts on

level B are slightly longer and more substantial than texts on level A; the latter focus on words and phrases while the former introduce new grammatical subject matters (Bonnier Utbildning, 2010). Word lists are gathered at the end of each book.

The books *First Time*, *Second Time* and *Third Time* (Bermheden et al., 1996, 1997, 1998) were included in this study. All texts on level A and B in each book were analyzed, see appendix 4.

2.1.4 *Wings*

Wings is a textbook series for the basic course in English (Natur & Kultur, 2010). The texts are not divided according to level. Word lists are gathered at the end of each book.

The three books *Wings Base Book 7-9* (Glover et al., 2001, 2002, 2003) were included in this study. All texts with headlines surrounded by dots were analyzed, as these were interpreted to be the main texts in the books. For a list of all analyzed texts, see appendix 5.

2.2 Data

Data were retrieved from the four textbook series that constitute the primary sources. For detailed information on which texts and which parts of them were analyzed, see appendices 2-5. First, the chosen texts were scanned. Then the converted texts were copied to Microsoft Office Word 2007 where they were proofread and corrected one by one.

For manual calculations readability formulas are usually used on samples of 100 words. However, since some texts in the textbooks used in this study were shown to be diverse, the complete running texts were included for analysis and not just samples from them. To use complete texts is also recommended for readability research since it gives a more reliable result (Klare, 1988: 31).

2.3 Methods of Analysis

Initially, the Dale-Chall Readability Formula was considered for this study, since it for long has been the most common in schools (Klare, 1988: 18). However, it required far too many manual corrections than was possible to manage within the scope of this study. Instead the Flesch Reading Ease was chosen, since it has been shown to correlate very well with the Dale-Chall formula (Gilliland, 1972: 92). As a complement the Flesch-Kincaid readability formula was chosen. In modern time both these formulas are embedded in Microsoft Word's Spelling & Grammar and are therefore easily calculated. (For detailed information about how to enable the readability statistics for Microsoft Office Word 2007, see appendix 1; for other versions of Microsoft Word, visit Microsoft Office Online).

Beware that the Flesch Reading Ease formula and the Flesch-Kincaid are dependent on the programming behind them and that different applications may generate different readability scores of these formulas on the same text, which a study by Mailloux et al. (1995, cited in Hall, 2006: 69) has shown. However, for this study, the goal was not to assign an exact readability score of each individual text but to find the progress, if any, between them. It was assumed that any readability formula, in sprite of small alterations within them, should be able to do that. It was also assumed that the application in Word is more accurate than most other applications available on the Internet.

2.3.1 Flesch Reading Ease

The Flesch Reading Ease formula is:

Reading Ease Score = 206.835 – (1.015 x ASL) – (84.6 x ASW)

ASL = average sentence length (number of words divided by number of sentences)

ASW = average number of syllables per word (number of syllables divided by number of words)

(DuBay, 2006: 97; Microsoft Office Online, 2010)

The Reading Ease formula can be used to analyze either a complete text or appropriate samples (Flesch, 2006). For the word count, contractions and hyphenated

words are to be counted as one word and numbers and letters separated by space are to be counted as individual words. Sentences may be separated by colons or semicolons. As regards the syllables of numbers and symbols, they are to be counted "according to the way they are normally read aloud" (Flesch, 2006: 106).

How to interpret the readability scores are presented in Table 1.

Table 1. Interpretation Table for Flesch Reading Ease Scores

Reading Ease Score	**Style Description**	**Estimated US Reading Grade[1]**	**Average Sentence Length**	**Average Number of Syllables per 100 Words**
90-100	Very Easy	5th grade	-8	-123
80-90	Easy	6th grade	11	131
70-80	Fairly Easy	7th grade	14	139
60-70	Standard	8th – 9th grade	17	147
50-60	Fairly difficult	10th – 12th grade	21	155
30-50	Difficult	13th – 16th grade	25	167
0-30	Very difficult	College graduate	29	192-

(Freely from Flesch, cited in Klare, 1988: 21)

As seen in Table 1 the Reading Ease formula ranges from 0 to 100, with easier texts scoring higher. If a text scores for instance 100, it is implied to be understood by an average student starting 5th grade in the USA. In other words it is implied that such a student would manage to get 75% right on a tests on the text in question (Flesch, 2006). According to Flesch (2006: 107) a text with a Reading Ease score of 100 should be "easy for any literate person" while a score of 0 represents a text that is "practically unreadable".

Klare (1988: 21) points out that the grade levels of the formula compensate for the fact that reading comprehension is generally curvilinear. This is apparent in Table 1 as the grade ranges increases with each level of difficulty beginning at the 7th grade. For the 5th to 7th grade, each "point on the formula scale corresponds to one-tenth of a grade" (Flesch, 2006: 103).

[1] For the Swedish equivalence in school years, decrease each grade by one.

2.3.2 Flesch-Kincaid Readability Formula

A simplified version does exist (DuBay, 2004: 50; Fry, 2002: 290). However, the version embedded in Microsoft Office Word 2007, and thereby used in this study, is more exact:

Flesch-Kincaid Grade Level = 0.39 x ASL + 11.8 x ASW – 15.59

ASL = average sentence length (number of words divided by number of sentences)

ASW = average number of syllables per word (number of syllables divided by number of words)

(DuBay, 2004: 50; Microsoft Office Online, 2010)

According to Microsoft Office Online (2010) Flesch-Kincaid estimates written material "on a U.S. school grade level". DuBay (2004: 52) stresses that the Flesch-Kincaid formula in "Word's Readability Statistics is defective in that it only goes to the 12th grade". This does however not hold true for Microsoft Office Word 2007 in which much higher grade levels was found in experiments within the present study.

2.3.3 Some Special Cases for the Formulas in Microsoft Word 2007

It was noticed in the present study that Microsoft Word 2007 does not always manage to interpret the syllables of numbers, symbols and abbreviations correctly (e.g. to write *11th* instead of *eleventh*, *$* instead of *dollars* and *km* instead of *kilometers* changes the scores). Furthermore, in Word 2007, phrases which end with colons or semicolons are not considered to be full sentences, although they should be according to Flesch (2006:107). No manual corrections for these flaws were made.

The only correction which was made was to help the program to interpret sentences with pauses. Sentences written as "But Peter . . . he wants to go!" are interpreted by Word 2007 as one sentence while "But Peter. . . he wants to go!" wrongly is counted as two separate sentences. In these cases corrections were made by inserting a space before the first full stop. In the same way phrases such as "But Peter . . ." were interpreted as full sentences and thereby manually corrected to "But Peter. . .".

2.3.4 Analysis

Before running the analysis in Word it is very important that the entire document is marked for the same language, in order for the application to analyze all the text (Microsoft Office Online, 2010). Thus, before each analysis all text in the document was marked and the language was changed to American English. This was done regardless of the language used for the text in question in order to get a more reliable comparison between texts.

The readability analysis was run for each text individually. The mean value and standard deviations of the texts according to level and book was calculated separately. Since this study is descriptive no comparative statistics were used. Important to stress is that the mean readability value for a book cannot be interpreted as the readability for the whole book since not all texts were analyzed.

The mean scores from the Flesch Reading Ease formula were also converted to grade levels according to Table 1 in order to make a comparison with the Flesch-Kincaid readability formula.

2.4 Hypothesis

The hypothesis was that the different textbook series would have approximately the same readability level and that the readability scores would increase with the intended grade of the books and assigned levels of the texts.

3 Results

3.1 Readability Progress of Textbooks within Series

The results indicate that all textbook series investigated in this study do have a progression of text difficulty from school year 7 to 9, see Figures 1-2 which present the average grade levels of texts according to the formulas Flesch Reading Ease and Flesch-Kincaid respectively.

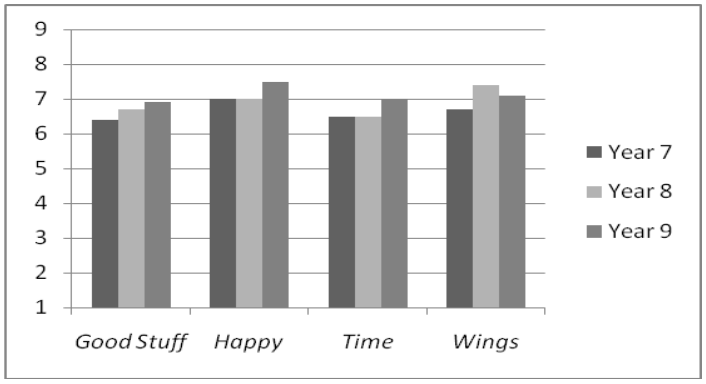

Figure 1. Average Flesch Reading Ease Grade Levels of the Textbooks

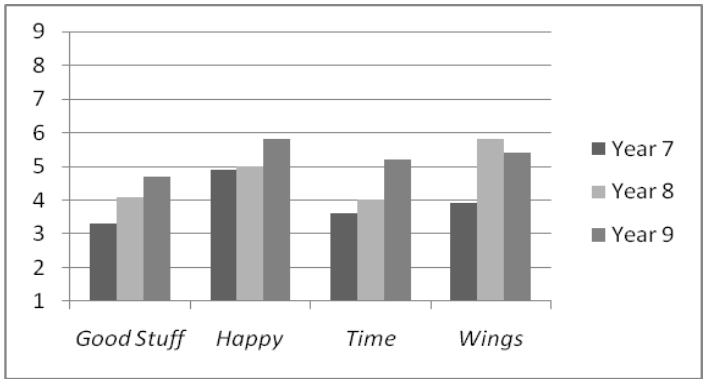

Figure 2. Average Flesch-Kincaid Grade Levels of the Textbooks

However, the progression pattern between the textbook series differs; only *Good Stuff* shows a linear progression. As seen in Figures 1-2, both readability formulas used in this study rendered similar progression trends within the four textbook series as regards their reading grades.

However, the estimated grade levels of the two formulas differ quite drastically. The grade levels from Flesch-Kincaid range from 3.3 to 5.8 whereas Flesch Reading Ease levels range from 6.4 to 7.5, see Figures 1-2 and Table 2, where the average

grade levels of both formulas together with the average text lengths for all textbooks in the study are presented.

Table 2. Average readability scores and grade levels for the analyzed texts in each book with average word counts (standard deviations within brackets)

		Flesch Reading Ease		Flesch-Kincaid	Number of Words	
		Score	Grade level	Grade level	Words/Text	Total
Year 7	*Good Stuff*	86.1 (10)	6.4	3.3 (1.9)	384 (186)	6,917
	Happy	80.3 (10.9)	7	4.9 (1.9)	464 (266)	12,538
	Time	85.1 (8.1)	6.5	3.6 (1.8)	381 (52)	8,376
	Wings	82.6 (15.5)	6.7	3.9 (2.8)	256 (102)	5,378
Year 8	*Good Stuff*	83.1 (11.5)	6.7	4.1 (2.3)	525 (254)	8,405
	Happy	80.2 (8.7)	7	5 (1.6)	583 (159)	12,989
	Time	84.7 (7.7)	6.5	4 (1.8)	486 (110)	9,725
	Wings	76.4 (12.1)	7.4	5.8 (2.5)	417 (364)	7,925
Year 9	*Good Stuff*	80.5 (16)	6.9	4.7 (3.1)	614 (380)	9,819
	Happy	74.8 (11.1)	7.5	5.8 (1.9)	599 (225)	10,783
	Time	79.8 (9.3)	7	5.2 (1.8)	526 (73)	9,462
	Wings	79.1 (12.9)	7.1	5.4 (2.6)	1,005 (586)	12,055

3.1.1 *Good Stuff*

Both formulas indicate that there is a progression of readability within the textbook series *Good Stuff* from school year 7 to 9 and that this progression is quite evenly

spread, see Figures 1-2. The readability grade level of the chosen texts increases from year 7 to 9 by 0.5 from grade level 6.4 to 6.9 for Flesch Reading Ease and by 1.4 from grade level 3.3 to 4.7 for Flesch-Kincaid, see Table 2.

Table 2 also shows that the average number of words per analyzed text within each of the textbooks increases with every year, not only for *Good Stuff*, but for all textbook series in this study.

3.1.2 *Happy*

The progression trend of average readability according to the Reading Ease formula are similar to that of the Flesch-Kincaid within the textbook series *Happy*, see Figures 1 and 2. From school year 7 to 9, the formulas show an increase of 0.5 and 0.9 grade levels respectively, ranging from 7 to 7.5 for Flesch Reading Ease and 4.9 to 5.8 for Flesch-Kincaid, see Table 2.

However, as seen in Table 2, there is hardly any difference in difficulty at all between the texts for school years 7 and 8 according to the Flesch Reading Ease, and the Flesch-Kincaid also indicate a higher increase between school years 8 and 9 than between years 7 and 8.

3.1.3 *Time*

Although the progression in *Time* for each year differs between formulas, both Flesch Reading Ease formula and the Flesch-Kincaid indicate that the difficulty of the texts in year 9 on average are more difficult than the ones for year 7, see Figures 1 and 2. The Flesch Reading Ease grade level increases by 0.5 from 6.5, in the textbook for year 7, to 7.0 in the textbook for year 9. The Flesch-Kincaid grade level increases by 1.6 from 3.6 to 5.2.

However, as with the progression for the textbook series *Happy*, and as seen in Table 2, both formulas indicate that the main increase of text difficulty occurs between school years 8 and 9.

3.1.4 *Wings*

Also the series *Wings* shows an increase in the readability of texts from years 7 to 9 but the results are uncharacteristic as the texts with highest average difficulty appear in year 8, see Figures 1 and 2. Year 8 aside, the series range from Reading Ease grade level 6.7 to 7.1 and from Flesch-Kincaid grade level 3.9 to 5.4, see Table 2; giving an increase of 0.4 and 1.5 grades respectively.

3.2 A Comparison between the Textbook Series for Each Year

The comparison between the average readability of texts in the four textbook series studied shows that they are on different levels. The study shows a general pattern in the relationship between the four textbook series, although school year 8 shows a different pattern than years 7 and 9, see Figures 1-2 and Table 2. According to the results from both formulas, the grading between the selected texts in the four series in years 7 and 9 from the easiest to the most difficult is:

1. *Good Stuff*
2. *Time*
3. *Wings*
4. *Happy*

The mean values within a series over all three years show the same pattern. Thus, *Happy* is the textbook series which, of the four studied, in general has the most difficult texts. The difference between *Good Stuff* and *Happy* are quite considerable (e.g. 1.6 grade levels in year 7 and 1.1 grade levels in year 9 according to the Reading Ease, se Table 2). The readability grade levels for both formulas for the texts analyzed in *Happy* for year 7 are already slightly higher than the texts in *Good Stuff* for year 9 (Reading Ease 7 as compared to 6.9 and Flesch-Kincaid 4.9 as compared to 4.7, see Table 2).

3.3 A Comparison of Levels within Textbook Series

Three of the four textbook series in this study, namely *Good Stuff*, *Happy* and *Time*, have texts which are divided according to level. In the following the readability grade levels of the selection of such texts within each series are compared.

3.3.1 *Good Stuff*

According to the publisher, the easier texts in *Good Stuff* are green and the more difficult ones are yellow. In Table 3, these levels are compared to the readability grade levels according to the Flesch Reading Ease and the Flesch-Kincaid formulas. The table also shows the average texts length per level and year.

Table 3. Average readability scores and grade levels for the analyzed texts according to level (G = green; Y = yellow) in the series *Good Stuff* with word counts (standard deviations within brackets)

		Flesch Reading Ease		Flesch-Kincaid	Number of Words	
		Score	Grade Level	Grade Level	Words/Text	Total
Year 7	G	85.9 (11)	6.4	3.1 (2.1)	318 (112)	2,861
	Y	86.4 (9.5)	6.4	3.5 (1.8)	451 (227)	4,056
Year 8	G	87 (14.4)	6.3	3.3 (2.7)	417 (211)	3,336
	Y	79.2 (6.5)	7.1	5 (1.4)	634 (259)	5,069
Year 9	G	84.6 (17.4)	6.5	3.6 (3.5)	407 (182)	3,252
	Y	76.5 (14.6)	7.3	5.8 (2.5)	821 (422)	6,567
Year 7-9	G	85.8 (13.8)	6.4	3.3 (2.7)	378	9,449
	Y	80.9 (11.1)	6.9	4.7 (2.1)	638	15,962

The comparison shows that the yellow texts in general are more difficult according to both readability formulas, especially for year 8 and 9. On average over all three years the difference between these two levels are 0.5 grade levels according to Flesch Reading Ease and 1.4 grade levels according to Flesch-Kincaid, see Table 3.

Table 3 also shows that the yellow texts are overall longer. In the textbook for year 9 they are even on average more than twice as long.

3.3.2 *Happy*

The average readability grade levels of texts on each of the three levels A, B and C in the textbook series *Happy* was calculated. An analysis of the total for school years 7 to 9 shows that the degree of text difficulty does increase slightly with level, see the bottom of Table 4.

Table 4. Average readability scores and grade levels for the analyzed texts according to level in the series *Happy* with word counts (standard deviations within brackets)

		Flesch Reading Ease		Flesch-Kincaid	Number of Words	
		Score	Grade Level	Grade Level	Words/Text	Total
Year 7	A	80 (8.4)	7	5.2 (1.6)	361 (133)	3,247
	B	80.2 (15.6)	7	4.8 (2.7)	398 (238)	3,581
	C	80.8 (8.5)	6.9	4.8 (1.6)	634 (326)	5,710
Year 8	A	85.8 (4.1)	6.4	4.1 (0.6)	517 (104)	4,132
	B	78 (7.3)	7.2	5.4 (1.5)	554 (87)	4,435
	C	76.9 (11.1)	7.3	5.6 (2.1)	678 (220)	5,422
Year 9	A	78.5 (6.4)	7.1	5.1 (1)	460 (129)	2,761
	B	74.2 (7.9)	7.6	5.8 (1.6)	531 (127)	3,187
	C	71.6 (17)	7.8	6.3 (3)	806 (243)	4,835
Year 7-9	A	81.6 (7.1)	6.8	4.8 (1.2)	441	10,140
	B	77.9 (11.2)	7.2	5.3 (2)	487	11,203
	C	77 (12)	7.3	5.5 (2)	694	15,967

As seen in Table 4, the Flesch Reading Ease scores imply that texts on level A on average over all three school years score 0.4 grade levels lower than texts on level B, which in turn score 0.1 grade levels lower than texts on level C. The equivalent scores from Flesch-Kincaid show a general increase of 0.5 grade levels from A to B and 0.2 grade levels from B to C. This gives a total difference in text difficulty, from level A to level C, of 0.5 grade levels according to Flesch Reading Ease and 0.7 grade levels according to Flesch-Kincaid.

However, as Table 4 shows, these differences mainly appear in the textbooks for year 8 and 9. In the textbook for year 7 Flesch Reading Ease scores show practically no difference at all and Flesch-Kincaid actually suggests that texts on level A are the most difficult and that texts on level B and C generally are on the same difficulty level.

The study also shows that, for each textbook in the series *Happy*, the average text length increases with every level, see Table 4.

3.3.3 *Time*

In the series *Time* the texts on level B are generally longer than the texts on level A. This holds true for all textbooks in the series, see Table 5. However, the texts on level B in *Time* are generally not more difficult than the ones on level A according to the readability scores, see Table 5.

On the contrary, as seen in Table 5, both the Flesch Reading Ease and the Flesch-Kincaid formulas indicate that for year 7 and 9, as well as for the series in total, texts on level A are actually more difficult than texts on level B. The difference over all three years is 0.3 grade levels according to Flesch Reading Ease and 0.7 grade levels according to Flesch-Kincaid.

Table 5. Average readability scores and grade levels for the analyzed texts according to level in the series *Time* with word counts (standard deviations within brackets)

		Flesch Reading Ease		Flesch-Kincaid	Number of Words	
		Score	Grade Level	Grade Level	Words/Text	Total
Year 7	A	83.5 (7.8)	6.6	3.8 (1.6)	354 (21)	3895
	B	86.7 (8.5)	6.3	3.4 (2)	407 (60)	4481
Year 8	A	85.5 (8.8)	6.4	3.8 (2)	423 (70)	4227
	B	83.9 (6.9)	6.6	4.2 (1.7)	550 (109)	5498
Year 9	A	74.9 (9.1)	7.5	6.2 (1.5)	496 (51)	4467
	B	84.8 (6.8)	6.5	4.1 (1.6)	555 (82)	4995
Year 7-9	A	81.6 (9.4)	6.8	4.5 (2)	420	12,589
	B	85.2 (7.3)	6.5	3.8 (1.8)	499	14,974

4 Discussion

The purpose of this study was to analyze texts from the four English textbook series *Good Stuff*, *Happy*, *Time* and *Wings* as regards their readability according to the two formulas Flesch Reading Ease and Flesch-Kincaid. The analysis shows that the series are on somewhat different difficult levels and that there is a considerable range in the level of difficulty between the texts. As hypothesized, there is on average a progression of text difficulty from school year 7 to 9 within each series. There is also in general such a progression from texts on assigned easier levels to the more difficult ones.

It is, from this study alone, difficult to assign precise readability grade levels to the four textbook series studied. First and foremost, readability formulas are not an exact measure (Binkley, 1988: 117; Bruce & Rubin, 1988: 21; DuBay, 2004: 56). Secondly, the grade levels for the two readability formulas used in this study are intended for native speakers, and not Swedish learners, of English and are therefore not fully applicable. Furthermore, a strict conversion of grade levels from USA to Sweden is not sufficient since it does not take into consideration the fact that English teaching does not normally start from the beginning of the Swedish school system. To simply move the zero point to when English teaching starts needs not render an equivalent difficulty grade level either; Swedish students may be more proficient readers in general at that point, which may affect the understanding of English texts as well.

Thirdly, few manual corrections for flaws found in the formulas in Microsoft Word 2007 have been made in the study. This fact alters the readability scores to a certain extent. However, it was assumed that these small alterations would not affect the general relationship between textbooks and levels.

Furthermore the grade level results from the two readability formulas used in this study differ quite drastically. For each school year the formulas differ between 1.6 and 3.1 grade levels and on average 2.25 grade levels. The average grade levels of texts taken from these textbook series do not even overlap; the highest grade level according to Flesch-Kincaid is 5.8 whereas Flesch Reading Ease grade levels start at

6.4. These differences are quite surprising since a study by Klare shows a higher agreement between the two formulas (Klare, 1988: 24-25). On the other hand, the most common readability formulas are known to occasionally disagree as much as three grade levels (Gunning, 2003: 183).

However, the discrepancy between formulas is not of great importance for the results since this study did not aim at assigning the strict average readability grade level of each individual textbook and each difficulty level. Instead, the study aimed at finding the potential difference of average text difficulty between such books and levels, which readability formulas normally manage to do (Gunning, 2003: 181).

A factor that may have affected the outcome of the study is that aspects which are important for reading comprehension (see Burns, 2006; Davison, 1988: 38; Gilliland, 1972: 96; Zakaluk & Samuels, 1988: 122) have been excluded from analysis. Therefore it is difficult to draw any definite conclusions from the present study as regards how comprehensible the texts really are.

However, the results from the present study is supported by the objectiveness of readability formulas (DuBay, 2004: 3; Fry, 2002: 287) and their high validity in general (Fry, 1977, cited in Fry, 2002: 291), which is particularly high for Flesch Reading Ease formula (DuBay, 2006: 97). The study is also strengthened by the fact that texts have been analyzed in their full length, which according to Klare (1988: 31) gives a more reliable result.

4.1 Readability Progress of Textbooks within Series

On average, each of the four textbook series studied shows a progression of text difficulty from school year 7 to 9. Both readability formulas used in this study rendered similar progression trends within the four textbook series as regards their reading grades. However, the progression of difficulty per year differs between the series and the texts in *Wings* do not have a typical progression as the texts for school year 8 general are the most difficult. This might be caused by a high proportion of nonfiction texts in *Wings* for year 8, see appendix 5.

This overall result was expected and is in alignment with the study by Björnsson and Tideholm (1974) which shows a general increase of readability in English Textbooks with grade level. The result is encouraging as this means that the textbooks continuously offer the students challenging texts as they in time develop their reading comprehension skills in accordance with Vygotsky's Zone of Proximal Development. The increase of text difficulty is also needed in order to offer students written material "slightly over their current level of development", which is what experts in reading recommend for instructional reading (DuBay, 2004: 56), which text in English textbook series generally are intended for.

However, although the results from the present study show a general progression within all four textbook series, the readability scores also show that the text difficulty varies significantly within each textbook, and not only by assigned level. One study indicates that readability formulas which are based on syllable counts, such as Flesch Reading Ease and Flesch-Kincaid, underrate "nonfiction" texts (Gunning, 2003: 178). If this is true, the actual difficulty range of the analyzed texts is even greater, since in this study in general the texts with the highest readability grade levels were nonfiction texts. Whether or not such a variety is intended is open for discussion, but it may be one way of matching texts with the students' individual levels, which is essential for comprehension (Gilliland, 1972: 12; Gunning, 2003: 175; Zakaluk & Samuels, 1988: 140). As a textbook is intended to suit most students in a class it has to meet a general level of comprehension. Certainly, not all students in a class are at the same level. Therefore perhaps textbooks, such as the ones studied, which offers texts on different levels of difficulty are to strive for.

4.2 A Comparison between the Textbook Series for Each Year

To match written texts with the students' individual levels of text comprehension is especially important for required reading (Gunning, 2003: 184). Therefore, the readability of textbooks and how English textbook series differ from one another needs to be considered. The readability scores could be used as a foundation for choosing written texts on appropriate level for students. However, readability

formulas generally need to be complemented with other methods in the process of choosing appropriate texts (Gunning, 2003: 182; Klare, 1988: 32).

The fact, that studies have shown readability to be especially important when there is a lack of interest (DuBay, 2004: 29), further indicates that an awareness of the readability of textbooks in school may be very important. As many teachers know, there is hardly any guarantee that students are interested in required reading. For optional reading the matching is not as important as students' motivation can facilitate their reading comprehension (Fry, 2002: 289).

Since only parts of the books have been analyzed in this study, it is difficult to draw any definite conclusions about the difference in readability between the four textbook series. However, the study indicates differences between the series. The textbook series which, according to the present study, in general have the easiest texts are *Good Stuff* and *Time,* while *Wings* and *Happy* have more difficult texts. The difference between the series is not always significant but between *Good Stuff* and *Happy* it is quite considerable.

As previously mentioned, experts in reading recommend written texts on a higher level for instructional reading (DuBay, 2004: 56). However, Gunning (2003: 182) asserts that it is better with too easy than too difficult texts. For this reason *Wings* and *Happy* are perhaps not suitable textbook series for all classes. On the other hand, since we, from this study alone, cannot assign an actual average Swedish grade level of the textbooks, all four series may be easy enough for the intended school years.

4.3 A Comparison of Levels within Textbook Series

The two series *Good Stuff* and *Happy* both have texts on different difficulty levels, according to the publishers (Liber, 2010; Gleerups, 2010). Theses difficulty levels were confirmed by the readability analysis in this study. Even though the results for *Happy* are somewhat inconclusive as the textbook for school year 7 show a different pattern, on average over all three school years, both formulas imply an increase of text difficulty with each level. However, it needs to be pointed out that rather few

texts have been analyzed for each level, especially in *Happy* for school year 3 in which only 6 texts on each difficulty level were included in the study.

That written English school texts in Sweden divided by difficulty levels differ as regards their readability scores has also been shown in a study by Björnsson & Tideholm (1974). Their study shows that the textbooks intended for "Särskild kurs" in English generally are more difficult than those intended for "Allmän kurs" according to the readability formula lix.

Today, different written texts for students on different levels may be found either within a leveled textbook or by using complementary texts. The findings in the present study that the series *Good Stuff* and *Happy* have such a progression of text difficulty indicate that these materials are appropriate for individualization.

The levels in *Time* do not follow the same pattern. The texts on level B in *Time* are generally not more difficult than the ones on level A, according to the readability scores. However, the publisher does not explicitly claim that the texts on level B are supposed to be more difficult, just slightly longer and more substantial (Bonnier Utbildning, 2010). That the texts on level B in general are longer were confirmed by this study and the average text length also increases with every level for the series *Good Stuff* and *Happy*. Such an increase of average text length was also found with every school year, in all four textbook series. Thereby, according to these textbook authors, text difficulty seems to be associated with text length.

4.4 Suggestions for Further Research

In order to validate the results from this study it would be interesting to compare them with students' understanding of the analyzed texts in the study. Validation against other readability formulas would also be of interest. Another suggestion for further research would be an analysis of the texts with regards to other factors which have been shown to affect reading comprehension.

It would also be interesting to complement the results with interviews with different textbook authors to investigate what they are aiming at in terms of

differentiating the books and the levels of the texts. Furthermore, the progression of new words introduced with every chapter could be the subject of research.

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Appendix 1

Enable Readability Statistics in Word 2007

1. Click the **Microsoft Office Button** , and then click **Word Options**.
2. Click **Proofing**.
3. Make sure **Check grammar with spelling** is selected.
4. Under **When correcting grammar in Word**, select the **Show readability statistics** check box.

(Microsoft Office Online, 2010)

Appendix 2

Texts Analyzed in *Good Stuff* with Limitations

Only text on the pages mentioned in the tables below have been included in the study, whether or not the chapter in question continues on the following page(-s).

Also included in the analysis are:

- The additional information in dialogues and plays (usually in italics)
- First paragraphs written as full sentences, whether in italics or bold or not

If not otherwise stated, the following have been excluded from analysis:

- Headlines
- Names introducing a person's turn in dialogues
- Captions to illustrations
- Author names and signatures (often with time and place for letters)
- Additional information included in pictures or within "squares"
- Tasks and exercises for, and instructions to, the reader (circled question marks)
- Short facts and lists of items
- Tables and other illustrations
- Extra Good Stuff
- All blue chapters

Good Stuff B

Level	Title	Pages
Green	Money, Money, Money	6-7
Yellow	The Almighty Dollar[2]	10-13
Green	Fast Food	18
Yellow	A Bottle of Coke	22-25
Green	Planning the School Play	28-29
Yellow	My First Class	32
Green	You First	46-47
Yellow	From a Balloon	50-51
Green	The World Says Hi![3]	56-57
Yellow	What the Shark Vomited	62-63
Green	Hanna and Her Horses	66-67
Yellow	Do Horses Remember?	70-71
Green	The Beautiful Game	76-77
Yellow	Aussie Rules Football[4]	80-81
Green	Stars	86-87
Yellow	They Died So Young	90-91
Green	A Swedish Tradition	118
Yellow	Me and Jack	120-122

[2] Eleven lines on page 10 and three lines on page 13 included.

[3] Eight lines on page 56 and three lines on page 57 included.

[4] The list of rules and all bold text are excluded.

Good Stuff C

Level	Title	Pages
Green	The Great Wall of China	6-7
Yellow	A Rude Awakening	10-11
Green	Champion Sisters	18
Yellow	Winners are Grinners	22-23
Green	Tonight's Plans	30-31
Yellow	The Wrong Video	34-37
Green	Was It a Crime?	44-45
Yellow	The Great Train Robbery	48+50
Green	The NHL	56-57
Yellow	Spirit Bears	60-61
Green	Maundy Thursday	66-67
Yellow	Birmingham	70-73
Green	Be My Valentine	76-77
Yellow	Christmas in Australia	80-81
Green	Friendly Advice	88-89
Yellow	Keep away from Phil	93-95

Good Stuff D

Level	Title	Pages
Green	Jill's Sister's Nose	6-7
Yellow	It Was the Running He Loved	11
Green	The Fur Jacket	18-19
Yellow	The Maze	22-23
Green	I Let Gatecrashers Steal My Sister's Car!	30-31
Yellow	Ricardo	34-36
Green	Feeling the Pressure	44-45
Yellow	Shiftless Drifter	48-50
Green	Ireland — On the Edge of Europe	58
Yellow	The Informer	63-65
Green	The Negotiator	68-69
Yellow	Peace in East Timor	72-73
Green	At the Roskilde Music Festival	78-79
Yellow	The Sex Pistols	82-85
Green	I Have a Dream: The Life and Death of Martin Luther King, Jr.	90-92
Yellow	Gentlemen, Your Verdict	98-102

Appendix 3

Texts Analyzed in *Happy* with Limitations

All first A, B and C texts from the chapters that include all these levels are used. Consequently the chapter Let's Talk London from *Happy 1* has been cut.

Only text on the pages mentioned in the tables below have been included in the study, whether or not the chapter in question continues on the following page(-s).

Also included in the analysis are:

- The additional information in dialogues and plays (usually in italics)
- First paragraphs written as full sentences, whether in italics or bold or not

If not otherwise stated, the following have been excluded from analysis:

- Headlines
- Names introducing a person's turn in dialogues
- Captions to illustrations
- Author names and signatures (often with time and place for letters)
- Additional information included in pictures or within "squares"
- Tasks and exercises for, and instructions to, the reader
- Short facts and lists of items
- Tables and other illustrations
- "Have a laugh"s
- Comic strips
- Stars with further explanations
- Additional texts within squares (often marked with +)
- (Embedded) tasks
- Texts marked 'reading for pleasure'

Happy Textbook No. 1

Level	Title	Pages
A	It's a Cat's Life	6-7
B	The Rescue	8-10
C	Animals – Friends or Fur?[5]	12-15
A	The Race of My Life	20-22
B	Sport Is For Everybody[6]	24+26-27
C	Football Mad	28-31
A	The Faces in the Floor	36-37
B	Painting the Town[7]	38-41
C	A Meeting with Aliens	44-45
A	Red Nose Day[8]	50-51
B	Festivals Around the World[9]	52-55
C	Thanksgiving	56-57
A	My Ideal Meal	70-72
B	Freaky Food Facts[10]	73
C	Americans Are Getting Fatter	78-79
A	Dress Code in School[11]	84-85
B	The Empty School	86-89
C	First Day of School	90-94
A	The Best of Everything	98-99
B	Oh No	100
C	Clothes to Die For	104-105
A	A Letter to America	110-111
B	Kissing the Blarney Stone	112-113
C	The Princess and the Beggar	118-119
A	The Earth – 46 Years Old!?	124-125
B	Messages to Outer Space	126-127
C	The Ultimate Adventure Holiday[12]	131-134

[5] All letters included without their headlines.
[6] All text within squares included, even the text in bold.
[7] The questions and answers for the reader are excluded.
[8] On page 51 only the first seven lines were included.
[9] The content in the letters included; no signatures and addresses
[10] The facts are not considered to be items on a list and are therefore included (not top twenty)
[11] All letters included without their headlines.
[12] The triangles are not considered to make up items on a list; all text is therefore included.

Happy Textbook No. 2

Level	Title	Pages
A	They Make Me Blush![13]	8-9
B	My Parents Know what Is Best for Me!	10-12
C	Barnardo's Gave Me My Life	13-15
A	My Dad's a Magician[14]	20-21
B	The Trick that Went Wrong	22-24
C	Super Intelligence	25-27
A	Adventures of a Backpacker[15]	34-35
B	Dreamtime	36-38
C	Walkabout	42-45
A	Having Your Own Car[16]	50-52
B	In the Wild, Wild West	53-54
C	The Rocket	58-59
A	The Gunpowder Plot	68-69
B	The Great Fire of London	71-72
C	Christmas in the Trenches	73-75
A	Problems, Problems…	80-82
B	Just Friends?[17]	85-87
C	Watching a Murder	88+90-91
A	An Englishman in New York[18]	98-100
B	A New York School[19]	101-103
C	Ground Zero	106-109
A	My Kind of Movies	114+116
B	Stunt Girls	117-118
C	Bollywood	124-126

[13] This text was chosen instead of the too short text What Are Your Parents Like?

[14] All text included.

[15] The first line included is "Dear Mum and Dad,".

[16] All text included.

[17] This text was chosen instead of C U l 8 r, which has the form of a chat and therefore is not typical.

[18] All text included.

[19] All text included; even student answers.

Happy Textbook No. 3

Level	Title	Pages
A	It Started with the King	4-6
B	Singing Means Everything	10-11
C	Watching Music[20]	15-17
A	The Laughing Sumo[21]	27-28
B	A Beautiful Morning	29-30
C	Bushido – the Samuray Way	33-35
A	Ever had a really good idea?[22]	50-52
B	Poor Inventors!	56-58
C	From Babbage to Gates – the Story of Computers	62-64
A	Down the Niagara Falls in a Barrel[23]	70+72
B	What Makes Toronto Special?[24]	76-78
C	Vote for Simanuk Nuqingaq[25]	82-84
A	Letters to Auntie	100-102
B	No Kissing!	106-107
C	Noughts and Crosses	112-115
A	Christopher Columbus – Hero or Villain?	122-124
B	The Death of Abraham Lincoln	129-130
C	The Escape	135-138

[20] Lyrics included

[21] This text was chosen instead of How to Be Normal in Japan, which is a list of facts about Japan.

[22] All text except the list of hints included.

[23] Postscript included

[24] All text included.

[25] The last three lines on page 84 excluded.

Appendix 4

Texts Analyzed in *Time* with Limitations

Only text on the pages mentioned in the tables below have been included in the study, whether or not the chapter in question continues on the following page(-s).

Also included in the analysis are:

- The additional information in dialogues and plays (usually in italics)
- First paragraphs written as full sentences, whether in italics or bold or not

If not otherwise stated, the following have been excluded from analysis:

- Headlines
- Names introducing a person's turn in dialogues
- Captions to illustrations
- Author names and signatures (often with time and place for letters)
- Additional information included in pictures or within "squares"
- Tasks and exercises for, and instructions to, the reader
- Short facts and lists of items
- Tables and other illustrations
- Tracks
- Follow ups

First Time

Level	Title	Pages
A	Save Chou-Chou[26]	6-7
B	Looking for Mr Stevens	8-9
A	Jennifer	12-13
B	The Fellow Passenger	14-15
A	Last One in	18-19
B	Autumn Leaves[27]	20-21
A	The Watchman	24-25
B	Hit the Road!	26-27
A	Britain Is More Than England	30-31
B	O Come All Ye Faithful	32-33
A	Two Worlds	36-37
B	The Lonely Child	38-39
A	E-Double Three-O[28]	42-43
B	The School Lunch	44-45
A	Super Bowl	48-49
B	Just Like in Italy	50-51
A	What's in a Face?	54-55
B	Alice	56-57
A	The Stars Are Born	60-61
B	The Boston Tea Party	62-63
A	Friends	66-67
B	Mark, Tom and Huck	68-69

[26] All italics included

[27] The numbers are not considered to be items on a list.

[28] Dates excluded

Second Time

Level	Title	Pages
A	Where's Your Manners?	6-7
B	Take a Deep Breath[29]	8-9
A	Waltzing Matilda	12
B	Botany Bay[30]	14-15
A	The Ad	18-19
B	Opportunity Knocks[31]	20-21
A	The Rabbit	24-25
B	Monty	26-27
A	Two Sisters	30-31
B	Of Mice and Men	32-33
A	Hollywood Dreams	36-37
B	The Wizard	38-39
A	The Hero	42-43
B	One for All	44-45
A	The Tunnel	48-49
B	The Globe	50-51
A	Walking in the Moonlight	54-55
B	In the Wilderness	56-57
A	Good News	60-61
B	Communication Problems	62-65

[29] Question headline on page 9 excluded; all answers included.

[30] Ballad included

[31] Text below picture included; regarded as the first paragraph.

Third Time

Level	Title	Pages
A	The Cathy and Claire Page[32]	6-7
B	My Eyes Adored You	8-9
A	Crimes That Went Wrong[33]	12-13
B	Welcome to Our Bank	14-15
A	The Rise of a Nation[34]	18-19
B	I See You	20-21
A	Albert and the Lion	24-25
B	Up, Up and Away!	26-27
A	Keiko[35]	30-31
B	The Glade	32-33
A	The Wise Man	36-37
B	They Play Frogs	38
A	Urban Legends	42-43
B	Footsteps in the Night	44-45
A	Resistance!	48-49
B	Love Thy Neighbour	50-51
A	Country on the Go	54-55
B	Famine	56-57

[32] All text except headline and signatures included.

[33] All text except headline included.

[34] The questions are not considered to be regular headlines and are therefore included.

[35] Date and place excluded.

Appendix 5

Texts Analyzed in *Wings* with Limitations

Only text on the pages mentioned in the tables below have been included in the study, whether or not the chapter in question continues on the following page(-s).

Also included in the analysis are:

- The additional information in dialogues and plays (usually in italics)
- First paragraphs written as full sentences, whether in italics or bold or not

If not otherwise stated, the following have been excluded from analysis:

- Texts without main headlines surrounded by dots
- Headlines
- Names introducing a person's turn in dialogues
- Captions to illustrations
- Author names and signatures (often with time and place for letters)
- Additional information included in pictures or within "squares"
- Tasks and exercises for, and instructions to, the reader
- Short facts and lists of items
- Tables and other illustrations

Wings Base Book 7

Level	Title	Pages
-	Party Talk	10-11
-	Why English in…[36]	14-15
-	Can You Describe Them?[37]	32-33
-	The Case of the Two Leo Browns[38]	41
-	The Marrog	42
-	Ireland	43
-	I'm Starving![39]	56-57
-	The Fable of Poor Eddie[40]	66
-	Jamaica	67-68
-	Can You Give Me a Hand?[41]	78-79
-	Saturday Morning in Elm Tree Road[42]	82-83
-	Not in My House	86-87
-	The Ghosts of Borley[43]	88-89
-	Zambia[44]	91-92
-	How Stupid of Me![45]	102-103
-	High Beams[46]	110-110
-	People of the Third Planet[47]	112-113
-	The Folk Who Live in Backward Town[48]	114
-	India	115-116
-	New Zealand[49]	123
-	Australia[50]	125

[36] The headlines are not full sentences and are therefore not included although they are questions.
[37] Text next to picture included; regarded as the first paragraph.
[38] Blue text excluded.
[39] Text next to picture included; regarded as the first paragraph.
[40] Including "MORAL" at the end of the story
[41] Text next to picture included; regarded as the first paragraph.
[42] First paragraph included.
[43] All text except words in italics included; the numbers are not considered to be items on a list.
[44] Blue text included.
[45] Text below picture included; regarded as the first paragraph.
[46] Text in italics not included.
[47] Bold text excluded. Narration and dialogue included.
[48] Only the poem included.
[49] The paragraph named Climate only include one sentence.
[50] Blu text and words in italics excluded.

Wings Base Book 8

Level	Title	Pages
-	Trips Week	17-20
-	Politeness pays[51]	28
-	Britain	32-33
-	The invaders[52]	34-35
-	England	36
-	Once upon a Christmas	47-49
-	Scotland	59
-	Wales	62
-	Northern Ireland	64
-	At School in Australia[53]	76-78
-	The Test	80-81
-	Get Out of Bed![54]	82
-	USA[55]	90
-	The United States of America[56]	91-92
-	The Wisdom of the Old Ones	96-97
-	Star for a Day[57]	107-109
-	Travelling in San Francisco[58]	114
-	A Day's Wait	117-119
-	The Americans Thought of it First![59]	124-125

[51] Only the first six lines of the chapter are included.
[52] All text included; the numbers are not considered to be items on a list.
[53] Text below picture included; regarded as the first paragraph.
[54] Only the poem included
[55] No headlines included, although they are questions.
[56] No headlines included, although they are questions.
[57] Text below picture included; regarded as the first paragraph.
[58] Only the first eight lines of the chapter are included.
[59] All text included except captions to illustrations; the numbers are not considered to be items on a list.

Wings Base Book 9

Level	Title	Pages
-	All Summer in a Day[60]	21-24
-	"Need a Haircut, Greaser?"	32-36
-	'I'm Not Getting Married at Seventeen!'[61]	51-54
-	Making Up	55-58
-	The Olympic Games	64
-	Survival at Sea	67-70
-	Equal Rights	85-88
-	Wargames	96-99
-	The Red Cross and the Red Crescent[62]	104-105
-	Getting There	118-120
-	Canada	122
-	South Africa[63]	125-126

[60] The author information excluded.

[61] Text next to picture included; regarded as the first paragraph.

[62] List of examples excluded (no full sentences).

[63] On page 126 only the first five lines were included.