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8 Orthographic regularization in Early Modern English printed books: Grapheme distribution and vowel length indication

The present study is an attempt at assessing the level of consistency in the orthographic systems of selected sixteenth and seventeenth-century printers and at tracing the influence that normative writings could have potentially exerted on them. The approach taken here draws upon the philological tradition of examining and comparing several texts written in the same language, but produced at different times. The study discusses the orthography of the editions of *The Schoole of Vertue*, a manual of good conduct for children, published between 1557 and 1687. The orthographic variables taken into account fall into two criteria: the distribution and functional load of the selected graphemes and the indication of vowel length.

Keywords: early printers, orthography, spelling, Early Modern English, orthographic variables, standardization.

8.1 Aims, corpus and methodology

Orthography understood as a codified and socially binding norm is a relatively recent notion. Although spelling started to raise interest among early linguists already in the sixteenth century (e.g., Smith, 1568 and Hart, 1569), it had not achieved standardization before the second half of the seventeenth century. Nonetheless, by the end of that century, it had become largely regular in printed documents (Scragg, 1974; Salmon, 1999; Görlach, 2001). The question, which so far remains controversial and under-researched, is whether the regularization and standardization of English orthography should be attributed to the early modern phoneticians, orthoepists, spelling reformers and lexicographers (Bregelmann, 1980; Carney, 1994; Milroy and Milroy, 1999) or to printers and publishers (Krapp, 1909; Howard-Hill, 2006; Rutkowska, 2013). To date, few authors have undertaken detailed analyses of spelling patterns in early printed documents (Blake, 1965; Osselton, 1984; Aronoff, 1989; Horobin, 2001; Rutkowska, 2005, 2013; and Howard-Hill, 2006), but even these case studies point to the potentially significant role of the printers in the establishment of the orthographic system of Modern English. The present study is an attempt at tracing the development of spelling practices in several editions of a popular manual of good manners entitled *The Schoole of Vertue*, published between 1557 and 1687, as well as identifying potential influences of normative writings on the sixteenth- and seventeenth-century printers. In fact, no formal distinction is made in this study into publishers, printers and compositors, because these occupations were frequently

overlapping in the earliest printing houses (Duff, 1906: 72; de Hamel, 1983: 29). Individual printing houses which issued the particular editions studied here are treated as entities whose orthographic “house styles” are investigated (if these can be identified).

The approach taken here draws upon the philological tradition of examining and comparing several texts written in the same language, but produced at different times. The study discusses the orthography of twelve sixteenth-century and seventeenth-century editions of *The Schoole of Vertue*. The first known edition is a manual of good conduct for children written by Francis Seager (Segar), printed and published by William Seares (Seres) in 1557.⁶² All the subsequent editions contain both the manual and a set of various prayers. The manual covers two thirds of the text and the prayers one third. This compilation was prepared by Robert Crowley, and first published by Henry Denham⁶³ in 1582. The other editions analyzed in this study comprise those printed by John Charlewood for Richard Jones (1593), G. E. (possibly George Elde) for T. P. (full name not known) and I. W. (conceivably John Wright senior) (1621),⁶⁴ M. (Miles?) Flesher for Robert Bird (1626, 1630, 1635, and 1640), M. Flesher for John Wright (junior, 1660),⁶⁵ E. Crowch for J. (John) Wright (1670), an anonymous printer for J. (John) Wright (1677), as well as an anonymous printer for M. W. (full name not known) and George Conyers (1687). The texts under analysis have the form an electronic database of transcriptions of the editions based on the facsimiles available at *Early English Books Online* (henceforth *EEBO*).⁶⁶ The corpus contains 87,737 running words. The exact word counts of the analyzed copies of particular editions as well as their catalogue numbers are provided in Table 16. According to the *English Short Title Catalogue (ESTC)*, two other editions were produced, in 1642 and 1698, but these are not available at *EEBO*.

As for the other physical features of the editions, presumably all of them were issued in the small, *octavo* format, and printed mostly in blackletter, with the title

62 The title of this edition suggests that it is not the first one, because it was “[n]ewely perused, corrected, and augmented”, but neither Pollard and Redgrave’s *Short Title Catalogue* nor *ESTC* provide any record of an earlier edition. Some years of publication and names of the printers (or publishers) have been reconstructed. These years and names are provided in square brackets in Table 16 and in the References. In the body of the chapter, these square brackets are avoided for aesthetic reasons.

63 According to the colophon, he was “the assigne of W. Seres” (1582, D7v). In this and the other citations from *The Schoole*, the capital letter refers to the quire, the number to the leaf and the small letter to the side of the leaf, i.e., *r* to the front side (*recto*) and *v* to the back side (*verso*).

64 George Elde and John Wright cooperated at least in some occasions (see Rutkowska, 2013: 68–69 for details).

65 In 1642 John Wright junior took over 62 copyrights which had belonged to Robert Bird and Edward Brewster (Plomer 1907: 198).

66 The transcription of the first edition of *The Schoole* can be consulted at *EEBO*, but I decided to prepare my own transcriptions of all the editions available in the form of facsimiles.

pages, running heads, titles of sections, chapter initials, and some important words (mainly names) highlighted in the Roman typeface in the majority of the editions.

Table 16. The analyzed editions of *The Schoole of Vertue*

Publication year	(Printer's and) Publisher's name	Catalogue no.	Word count
1557	William Seares (Seres)	STC 22135	4,932
1582	H[enry] Denham	STC 22136	7,760
1593	[John Charlewood for] Richard Jones	STC 22137	7,523
1621	G. E. for T. P. and I. W.	STC 22137.7	7,525
[1626]	M. Flesher for Robert Bird	STC 22138	7,517
[c. 1630]	M. Flesher for Robert Bird	STC 22138.3	7,513
[c. 1635]	M. Flesher for Robert Bird	STC 22138.5	7,512
[c. 1640]	[M. Flesher for Robert Bird]	STC 22138.7	7,309
[c. 1660]	M. Flesher for John Wright	Wing S2171	7,542
[1670]	E. Crowch, for J. Wright	Wing S2412C	7,529
1677	Anonym for J. Wright	Wing S2412D	7,537
1687	Anonym for M. W. and George Conyers	Wing S2412E	7,538
		Total	87,737

The main focus of this chapter is the realization and development of several orthographic variables in all the editions under consideration. The variables taken into account fall into two criteria: the distribution and functional load of selected graphemes,⁶⁷ and the indication of vowel length. The discussion of the findings of the present study is divided into two sections, (2) and (3), one for the each of the criteria. The indication of vowel length is listed beside orthographic distinction between homophones as well as the establishment of morphological and etymological spelling in Salmon (1999: 21), all of which are considered crucial in the research on orthographic standardization in English.

Wherever relevant, comparisons are made with the findings of the extensive study analyzing printers' orthographic systems in thirteen editions of the *Kalender of Shepherdes* (henceforth *KS*) published between 1506 and 1656, summarized in Rutkowska (2013). The *KS* corpus is approximately ten times larger than that comprising *The Schoole* editions.

All the tables and figures refer to *The Schoole* editions. Unless indicated otherwise, the tables and discussions contain absolute values. The years of publication (not

⁶⁷ When discussing the correspondences between graphemes and phonemes, I also use the terms (nouns) *consonantal* and *vocalic* in this chapter, with reference to graphemes corresponding to consonants and vowels, respectively (following Welna, 1982: 10). A consonantal may, occasionally, refer to a sequence of graphemes, if they correspond to a single consonant, as for instance, in *SPEECH*.

sigils) will be used to refer to particular editions in order to facilitate comparisons across the editions with regard to the chronology of changes.

The spelling patterns and orthographic variants identified in *The Schoole of Vertue* (henceforth *The Schoole*) editions are set against the prescriptive and proscriptive recommendations of contemporary language authorities and their potential influence on the choices of the printers is assessed. The works consulted for the purposes of this project comprise over thirty sources, e.g., Hart (1569), Mulcaster (1582), Clement (1587), Cawdrey (1604), Cockeram (1623), Butler (1633), Daines (1640), Wharton (1654), Coles (1674), and Ellis (1680).

8.2 Distribution of graphemes

One of the elements in the regularization of spelling in the books printed in English in the early modern period was the introduction and spread of the modern rules of grapheme distribution and graphophonemic correspondences. The graphemes affected by these changes include, most characteristically, <u> and <v>, as well as <i>, <j> and <y>. The findings of the present study concerning their distribution show the interrelations between particular graphemes (and phonemes) as well as between spelling and typography.

The results regarding the distribution of graphemes in *The Schoole* editions are compared with the findings of the study on the *KS* (see particularly Rutkowska, 2013: 117–130), and, where relevant, with the practice and views of early modern theoreticians and lexicographers.

8.2.1 <v> and <u>

English medieval manuscripts generally observed the principle of the complementary distribution of <u> and <v>, established earlier on the continent, according to which these graphemes could correspond to both the vowel /u/ and the consonant /v/ but <v> was used word-initially and <u> word-medially (see e.g., Scragg, 1974: 14; Salmon, 1999: 39). This old rule is followed exceptionlessly in the editions of *The Schoole* published between 1557 and 1621. In the editions printed between 1626 and 1635, the distribution of the graphemes <u> and <v> depends on the typeface. In 1626, the passages in the Roman typeface are set according to the modern principle, where <u> functions as a vocalic and <v> as a consonantal, with only one exception (*euening*). In the same edition, the compositor(s) setting the text in blackletter usually observed the medieval complementary distribution rule, but not consistently, allowing for several instances of spellings such as *unto*, *up*, *utterance*, *us*, *upon*, *heavenly*, and *deliver*. It also contains the form *uertues*, which is certainly a typo. In 1630, the confusion between the distribution rules is avoided: the old rule is observed in blackletter and

the modern one in the Roman typeface, without a single exception. The 1635 edition displays the same arrangement, but this time a few exceptions are allowed, namely *ungentlenesse*, *us*, *unfainedly*, and *up*, where the new principle sneaks into some passages in blackletter. Eventually, in 1640 and all the subsequent editions, <u> and <v> are distributed in the modern, contrastive way. This seems rather late, as according to *OED* (s. v. “U, n.1”), the modern distribution had become established by 1630.

An analogical change in the distribution of the graphemes can be noticed in the *KS* editions, with those published between 1506 and 1631 following the old principle, and the last edition, of 1656, the new one. However, single exceptions to the old rule are recorded already in the earliest editions (see Rutkowska, 2013: 118–119 for details).

The remarks on the employment of <u> and <v> made above concern lower-case letters. In both the *KS* and *The Schoole*, no functional difference is made between the capital versions of these graphemes. In blackletter, the same <U>-like shape corresponds to the vowel /u/ and the consonant /v/, for example in *Unto*, *Upon* and *Up* as well as *Uice*, *Uertue* and *Uicars*. In the relatively infrequent passages in the Roman typeface, the only words recorded are those starting with the consonantal, a <V>-like character (e.g., *Vertue* and *Verdict*), so no conclusions can be drawn on the potential functional differentiation.

8.2.2 <i> and <j>

In England, the first attempts to replace the grapheme <i> with <j> where it corresponded to the consonant /dʒ/ go back to the late sixteenth century, but it became generally established after 1630 (*OED*, s. v. “J, n.”). This replacement can also be traced in *The Schoole* editions. No occurrence of the grapheme <j> can be found in those published between 1557 and 1621. In 1626, word-initially, eighteen tokens of lower-case <j> are recorded in *jangle*, *jewell*, *joy*, *joyfull*, *judge*, *judgements*, *judging*, *just*, *justice*, and *justly*, printed in blackletter, as well as one upper-case token in the Roman type in *Jacobs*. However, not all the tokens of the relevant lexemes are spelt in the modern way, as this edition contains also the variant forms *ioyfull*, *iudge*, *iudgement(s)* and *iust* in blackletter, lower-case (five tokens), *Iudges* and *Iust* in blackletter, upper-case, as well as one token of *Iacobs* in upper-case, in the Roman typeface. Word-medially, <i>, in all the words where it corresponds to /dʒ/ in the previous editions, is replaced by <j> in 1626 (i.e., *Majesty*, *reject*, *rejoyce*, *subjects*, and *vnjust*, all in blackletter). Surprisingly, in the following edition (1630) one can see a switch to the old system, without <j>, apart from one instance of *Jacobs* in the Roman typeface. By contrast, in 1635 the modern distribution of <j> is in place, except when a word begins with a capital letter. In the latter case, the old variants are used (i.e., *Iacobs*, *Iudge(s)*, and *Iust*). In the 1640 edition, <j> is fully established word-initially when a word starts with a lower-case letter, and for the capitals, the use depends on the typeface, with

Judge(s), *Iust* and *Iustice* in blackletter, and *Jacobs* in the Roman typeface. The only difference between 1640 and 1660 is that in the latter *Jacobs* (in the Roman typeface) is also spelt in the old way. In the last three editions (1670-1687), the modern spelling is the standard, except when the capital occurs in blackletter (*Iust*, *Iudgements*, *Iudg*, *Iudges*, *Iustice*), which simply does not seem to have a separate character for <j>.

By comparison, in the *KS*, <j> is recorded solely in the last edition (1656), in *journey*, *joynt* and *judg(e)ment*, printed in the Roman typeface. This grapheme is not employed at all to refer to /dʒ/ in blackletter, even in lower-case. Nevertheless, in the editions issued in 1506, 1528, 1580-1585, and 1604-1618, it is occasionally used as a final allograph of <i> in Roman numerals (e.g., *iiij* and *xij*). The absence of <j> in 1656 may have resulted from the lack of a separate character for it in blackletter in the printing house which issued it.

8.2.3 <i> and <y>

It is usually claimed that the graphemes <i> and <y>, acting as vocalics in word-medial position, were used interchangeably and haphazardly by the early printers of books in English (e.g., Blake, 1965: 65, 71; Brengelman, 1980: 349; Salmon, 1999: 28; Nevalainen, 2012: 144). Nevertheless, some studies show that already in early sixteenth-century books, the distribution of <i> and <y> is not as random as has been suggested. More precisely, <i> is regularly used in function words (e.g., *THIS*, *WHICH*, *HIS*, *WITH*)⁶⁸ and <y> in content words (Aronoff, 1989: 68-69, 93-94; Rutkowska, 2013: 121-130).⁶⁹ Such division can be noticed in the earliest *KS* editions (1506-1528), but in the second half of the sixteenth century and the first half of the seventeenth century <y> is gradually replaced by <i> also in content words. Interestingly, *HIM(SELF)*, *THEIR*, and *WILL* behave differently from the remaining function words, displaying the spelling patterns characteristic of content words (see Rutkowska, 2013: 123-124 for potential reasons of this differentiation). Consequently, it does not seem surprising that the only function words which still contain <y> in *The Schoole* edition published in 1557 are *WILL*, *THEIR*, and *HIM(SELF)*. In 1593, *theyr* is the last remnant spelling variant of a function word containing <y>. By contrast, in 1557, <y> is routinely employed word-medially in content words. In 1593 and later editions, however, its use steadily decreases to the benefit of word-medial <i>. By 1626, the sole old-system spellings containing <y>, which cannot be found in PDE, are *voyder*, *lyar*, *lye(s)*, *obeysance*, and *tryall*. Of these, *tryall* is replaced by *triall* in 1630, and *voyder* is replaced by *voider* in 1640. In light of these developments, it is quite remarkable that the edition of *The*

⁶⁸ Each word in small capitals comprises all the graphemic realizations of a given lexeme.

⁶⁹ Aronoff believes that this rule applies only to books printed by Wynkyn de Worde, but Rutkowska's research proves that it was more widespread in the early sixteenth-century printed books.

Schoole printed in 1582 by Henry Denham, does not contain any words with medial <y> apart from *Physician*, *Pythagoras*, *Egypt*, and *tyrant*, all of Greek origin. Unexpectedly, even in those forms where it is standard in PDE (across the morphological boundary), Denham avoids <y>, using, for instance, *saieng*, *plaieng*, *enuieng*, *ioifull*, and *praier* (cf. PDE *saying*, *playing*, *envying*, *joyful*, and *prayer*, respectively).

8.2.4 Theoreticians' opinions on the distribution of graphemes

The graphemic conventions found in the early printed books replicate, at least to some extent, the patterns common in medieval manuscripts, which are due to continental influences. This certainly applies to the distribution of the graphemes <u> and <v>, as well as to the frequency of <y> word-medially. The latter was originally motivated by graphetic considerations, as <y> (compared to <i>) increased the legibility of those words where it immediately preceded graphemes such as <m> and <n> (e.g., in *HIM(SELF)*, *THING*, *BRING*, *CRIME*, *TIME*, and *PLAIN*). These “received” rules were contested by early modern spelling reformers. For example, John Hart urged his readers to distinguish between <u> and <v> as well as between <i> and <j>, already in his *The opening of the unreasonable writing of our english tounge...*, an unpublished pamphlet written in 1551 (Dobson, 1957, I: 69).⁷⁰ Hart's endorsement does not seem to have influenced the contemporary printers, as even his own works, *Orthographie* and *Method*, published in 1569 and 1570, respectively, were printed in accordance with the old principles as regards the distribution of <u> and <v> and the absence of <j>. Nonetheless, it is noteworthy that both Hart's books contain very few instances of word-medial <y>, although they were issued by different printers, *Orthographie* by William Seres and *Method* by Henry Denham. Seres printed the first edition of *The Schoole* before his cooperation with Hart, whereas Denham issued its second edition over a decade after such cooperation. Perhaps the latter's views concerning the distribution of the vocalics <i> and <y> affected Denham's spelling practices, which are characterized by the extremely low number of tokens with word-medial <y>.

Later on, Butler (1633: “To the Reader”), explicitly stated the distribution principle according to which <v> and <j> should correspond to consonants and <u> and <i> to vowels. The new rule is observed already in the book in which he expressed this opinion, printed by William Turner. Butler's recommendation seems to have become authoritative because a general change in spelling practices soon occurred in printing houses. It is also recorded in an edition of Coote's handbook as well as an edition of Cockeram's dictionary, both published in 1637.

⁷⁰ According to Dobson, Hart's opinion is the earliest record of this recommendation in English.

8.3 Indication of vowel length

This section examines the three main methods which early modern printers employed in the documents under consideration for indicating long vowels. These include doubling the vocalic corresponding to the relevant vowel, adding the final <e>, and the combination of both solutions. Attention is also paid to the use of the digraph <ea>, an aspect relevant both to vowel length and to qualitative differentiation between vowels. The functional significance of <ea> is complex, due to both qualitative considerations and later quantitative modifications, that is, mainly the shortening of the vowel (e.g., BREAD, HEAD, WEALTH, HEALTH etc.); therefore, for clarity of the findings, the lexemes with the shortened vowel are not taken into account here. Also other lexemes with shortened vowels are not examined here (e.g., BOOK, GOOD and LOVE).

Nearly all the words analyzed in this section are monosyllabic, with few exceptions. Singular forms are taken into account with regard to nouns, and unmarked forms with regard to verbs. Also, only native words are considered; loanwords are excluded because the spelling patterns displayed by them might be at least partly obscured by foreign orthographic influences. Some other groups of words excluded from the analysis are those ending in /r/ and in consonant clusters, due to the complex histories of the vowels in such phonotactic contexts (often associated with shortening), as well as words ending in /v/, /s/ and /z/ (e.g., LEAVE, PROVE, HOUSE, and CHOOSE) because they do not show variation and are consistently spelt with the final <e> (with few exceptions).

The analysis focuses on the spellings of the lexemes containing the reflexes of the Middle English vowels /e:/, /ɛ:/, /o:/ and /ɔ:/, that is, those which are generally considered to have undergone the so called Great Vowel Shift (henceforth GVS, see for instance Lass, 1999: 72–73). Those words in which the vowel derives from ME /a:/ (e.g., MAKE, NAME, SAME, and WIPE) are spelt consistently with the final <e> in all *The Schoole* editions, so they do not provide evidence relevant to a comparative study. Also the lexemes containing the reflexes of ME /i:/ (e.g., LIFE, TIME, and PRIDE), as well as the reflexes of ME /u:/ (e.g., ABOUT, OUT, and WITHOUT) do not show sufficient spelling variation and modification with regard to vowel length indication (though they often display the variation between <i> and <y>), to allow a quantitative comparative study.

Similarly to the previous section, the findings concerning vowel length indication obtained on the basis of *The Schoole* editions are confronted with, on the one hand, the results of the study on the *KS* (see Rutkowska, 2013: 141–161) and, on the other hand, with the opinions of early modern language authorities.

8.3.1 Early Modern English /i:/ reflecting Middle English /e:/

Table 17 and Figure 16 present the ways of indicating vowel length in words ending in a closed syllable,⁷¹ with the stem vowel originating in Middle English /e:/, which developed into /i:/ before 1500 (Dobson, 1957, II: 651). The words whose spellings are considered here include DEED (n), DEEM (v), FEED (v), FEEL (v), HEED (n), INDEED (adv), KEEP (v), MEEK (adj), MEET (v), MEET (adj), NEED (n), NEED (v), PEEP (v), QUEEN (n), SEED (n), SEEK (v), SEEM (v), SHEEP (n), SLEEP (n), SLEEP (v), SPEECH (n), SPEED (n), STREET (n), SWEEP (v), SWEET (adj), and WEED (v), as well as *BEEN*, *FEET*, and *TEETH*, which comprise the past participle of the verb BE and the plural forms of the nouns FOOT and TOOTH, respectively. Most words listed above yield between one and three tokens in each edition. Some lexemes, namely DEED (n), FEED (v), HEED (n), KEEP (v), and NEED (n), have 5–10 tokens in most editions.

Table 17. Words with /i:/ < ME /e:/ in closed syllables: distribution of vowel length indication

	1557	1582	1593	1621	1626	1630	1635	1640	1660	1670	1677	1687
<eCe>	34	-	-	-	-	-	-	-	-	-	-	-
<eeCe>	-	39	43	29	30	30	30	9	7	-	-	-
<eeC>	1	34	35	42	44	44	44	63	66	72	74	72
<eaCe>	2	-	-	-	-	-	-	-	-	-	-	-
<eaC>	1	2	-	1	-	-	-	-	-	-	-	-

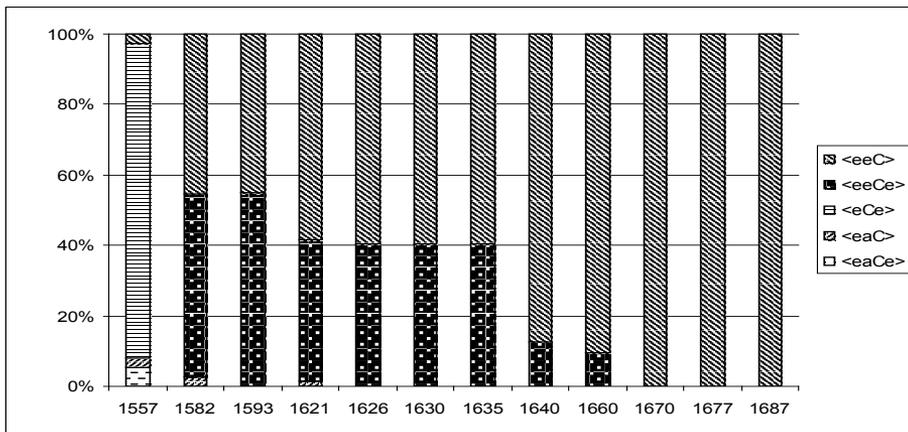


Figure 16. Words with /i:/ < ME /e:/ in closed syllables: tendencies of vowel length indication

⁷¹ The capital <C> in all the patterns stands for a single consonantal.

In the first edition of *The Schoole* (1557), similarly to the four earliest editions of the *KS*, the printers indicate the length of the vowel in the stem almost exclusively by adding the final <e> (90% of the tokens).⁷² By comparison, the <eCe> pattern is recorded in 99.5–100% of the tokens in the *KS* in the years 1506–1528, and 93% in 1556. In 1582 and 1593, this method is abandoned in *The Schoole*; instead, the doubling of the vocalic and the combination of the doubling with the final <e> compete with each other, but the latter slightly prevails, accounting for approximately 55% of the tokens. In contrast, although the share of the <eCe> spellings decreases sharply between 1570 and 1585 (from 78.5% to 14%), in the *KS* it remains in use throughout the sixteenth century. During the same period, the number of the <eeCe> spellings in the *KS* increases from 22% to 73%, and that of the <eeC> spellings moves from 0% to 13%. In *The Schoole*, the rivalry between <eeCe> and <eeC> continues until 1670, when the modern spelling becomes the standard one. Yet, <eeC> becomes dominant already in the 1620s and the 1630s, approaching 60%, and exceeds 87% and 90% in 1640 and 1660, respectively. In the *KS*, the <eeCe> pattern is the major method of indicating vowel length between 1600 and 1611 (68–71%), and then drops to 22% in 1618, giving ground to the modern spelling (78%); it regains some importance in 1631 (49%), but is totally ousted by <eeC> in 1656 (i.e., even earlier than in *The Schoole*).

Apart from the main three spelling patterns, in the 1557, 1582 and 1621 editions of *The Schoole*, single tokens of *speach(e)* (in all the three editions) and *streate* (only in the first edition) are also recorded. In the case of the noun *SPEECH*, the uncertainty concerning spelling may be due to the influence of the graphemic shape of the semantically related verb *SPEAK*.

In open syllables, the graphemes corresponding to the vowel /i:/, derived from ME /e:/, were subject to different tendencies in content words and in function words. The vowel length in content words, including *AGREE* (v), *DEGREE* (n), *FLEE* (v), *FREE* (adj), *KNEE* (n), *SEE* (v), and *THREE* (num), is not marked in *The Schoole* in 17 out of 28 tokens (61%) in 1557 (mostly in *SEE*), but in all the remaining editions these lexemes are spelt in the modern way. A lower level of unmarked vowel length, that is, 40% is recorded in the 1556 edition of the *KS*.⁷³ Nevertheless, in the three earlier *KS* editions this value is much higher, amounting to 89% in 1506, 71% in 1518, and 73% in 1528; then the popularity of the <Cee> pattern increases sharply from 60% in 1556 to 80% in 1570, over 90% in 1580–1585, and 100% in 1600.

⁷² With regard to the *KS*, the following lexemes are taken into consideration: *GREEN* (adj), *KEEP* (v), *MEEK* (adj), *MEET* (v), *NEED* (n), *NEED* (v), *SLEEP* (n), *SLEEP* (v), *SPEECH* (n), *HEED* (n), and *SWEET* (adj) (for more details see Rutkowska, 2013: 143–145).

⁷³ The list of lexemes examined in the *KS* covers *DEGREE* (n), *FLEE* (v), *FREE* (adj), *KNEE* (n), *SEE* (v), *THREE* (num), and *TREE* (n).

Table 18. Function words with /i:/ < ME /e:/ in open syllables: distribution of vowel length

	1557	1582	1593	1621	1626	1630	1635	1640	1660	1670	1677	1687
<Ce>	140	218	215	217	216	218	223	219	218	220	224	223
<Cee>	1	18	17	9	11	10	5	6	6	1	-	-

In function words full regularization takes more time in *The Schoole*, but the tendency is clear already in the first edition. Table 18 makes it clear that function words including BE (v), HE (pro), WE (pro), and YE (pro), are almost invariably spelt with a single <e>. The spellings with the <Cee> pattern account for 0.5–7.6% of the tokens, depending on the edition. The object form of the pronoun THOU (pro) (i.e., *the(e)*), has been excluded from the count because of its unusual frequency in this corpus. In 1557, *the* accounts for 14.6% of the tokens of *THEE* (7 out of 48), but single instances of such spelling can be found only in 1593, 1621, 1640, and 1660. Apparently, this pronoun follows the pattern of content words, presumably due to avoidance of homography with the definite article THE.

The spelling of the relevant function words follows an analogical trend in the *KS* (see Rutkowska, 2013: 146 for more information).

8.3.2 Early Modern English /ɛ:/ and /e:/ reflecting Middle English /ɛ:/

This subsection examines the graphemic representations of the lexemes which in PDE are spelt with <eaC>, and in which the vowel goes back to Middle English /ɛ:/. They include BEAT (v), CLEAN (adj), DEAL (v), EACH (a, pro), EAT (v), HEAT (v), LEAD (v), LEAN (v), MEAN (adj), MEAN (n), MEAT (n), REACH (v), READ (v), SEAM (n), SPEAK (v), and TEACH (v), as well as BREAK (v) and GREAT (adj). During the Early Modern English period, /ɛ:/ was raised to /e:/ in these words, but the new pronunciation was accepted in careful speech in the later part of the period (Dobson, 1957, II: 607, 619). In PDE the majority of the words listed above have the vowel /i:/, due to a post-GVS merger with words such as MEET and SEEM (see for instance Lass, 1999: 73), with the exception of BREAK and GREAT, which contain /eɪ/. All the lexemes considered here are represented by close syllables. The only relevant lexeme which ends in an open syllable and contains a vowel originating in ME /ɛ:/ is SEA, but it does not show spelling variation in *The Schoole* editions.

Table 19 and Figure 17 show the spelling patterns of the relevant lexemes, apart from BREAK and GREAT. In 1557 and 1582, <eaCe> predominates, accounting for 73% and 65% of the tokens, respectively. In the first edition, there are also remnants of the old <eCe> pattern, but it is recorded only in EACH (24% of all the tokens), and so is the <eC> pattern in 1582 (17.5%). The fact that the latter does not contain any indication of vowel length implies that the vowel in EACH could have been perceived as short, perhaps because it was followed by a voiceless affricate. As regards single instances

of <eeCe>, these concern solely the lexeme CLEAN (adj). The modern pattern, <eaC>, yields merely one instance in 1557, but it quickly rises in importance, accounting for 16% of the tokens in 1582, and for 65.5% in 1593. There is some variation between <eaCe> and <eaC> in the years 1621–1660, with the modern spelling prevailing in 1593, losing leadership in 1621, regaining it in 1626 and 1635, showing equal importance as <eaCe> in 1630, and eventually becoming the standard in 1670.

Table 19. Words with /ɛ:/ or /e:/ < ME /ɛ:/ in closed syllables: distribution of vowel length indication

	1557	1582	1593	1621	1626	1630	1635	1640	1660	1670	1677	1687
<eC>	-	11	-	-	-	-	-	-	-	-	-	-
<eCe>	9	-	-	-	-	-	-	-	-	-	-	-
<eeCe>	-	1	1	-	-	-	-	-	-	-	-	-
<eaCe>	27	41	19	38	22	31	21	19	19	-	-	-
<eaC>	1	10	38	23	41	31	42	42	45	62	61	63

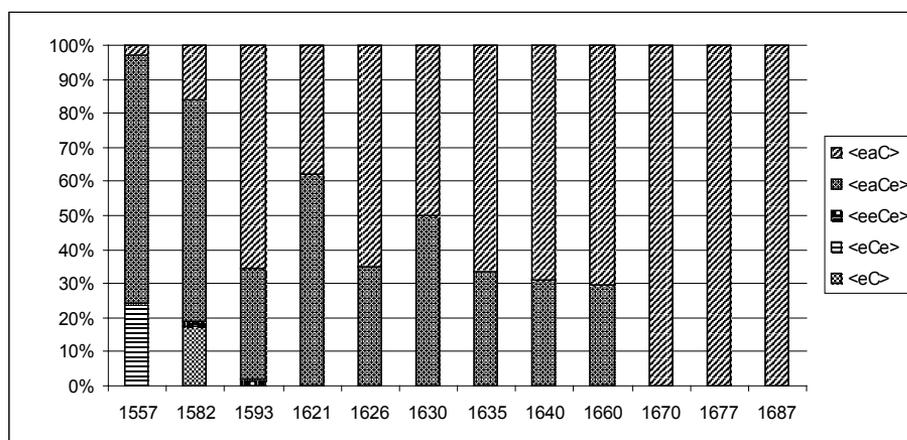


Figure 17. Words with /ɛ:/ or /e:/ < ME /ɛ:/ in closed syllables: tendencies of vowel length indication

In the *KS*, the relevant lexemes taken into consideration include EACH (adj and pron), EAT (v), HEAL (v), HEAT (n), MEAT (n), SPEAK (v), and TEACH (v). The first three editions contain nearly exclusively the forms with the <eCe> pattern, with <eeC> as a minor pattern in 1518 (4%) and 1528 (10.5%) in HEAT and MEAT. In 1556, <eCe> and <eaCe> are equally frequent; thus, compared to 1557 in *The Schoole*, the change to the new pattern seems less advanced in this corpus. The <eaCe> spellings dominate in the editions published in the years 1570–1585, staying at the level of 57–59%, which is roughly comparable to 65% found in 1582 in *The Schoole*. In the same period, approximately 5% of the forms in the *KS* are spelt <eCe>. In 1600 and 1604, the shares of <eaCe> and

<eaC> remain equal and the old spelling pattern is gone (though single instances of <eC> occur until 1611), and between 1611 and 1656 the number of the modern spellings increases from 55% to 98%. In fact, the <eaC> spellings reach nearly 79% already in the 1618 edition of the *KS*, which seems early, compared to 70% still in the 1660 edition of *The Schoole*.

The lexeme *GREAT* acquires the modern graphemic shape already in the second edition of *The Schoole* (1582), whereas in the 1585 edition of the *KS*, the form *great* accounts for almost 94% of the tokens of *GREAT* and in 1600 it nears 100%, with a single token of *greate* found. By comparison, *BREAK* is spelt predominantly as *breke* until 1580, and then *breake* until 1656. In *The Schoole*, in turn, *breake* is used between 1557 and 1635, and *break* in the following editions.

8.3.3 Early Modern English /u:/ reflecting Middle English /o:/

In this subsection, lexemes with the <ooC> pattern in PDE, containing the long vowel /u:/, a reflex of ME /o:/, are considered. The group of (close-syllable) words analyzed here comprises *BROOD* (n), *DOOM* (n), *FOOD* (n), *MOOD* (n), *NOON* (n), *SCHOOL* (n),⁷⁴ *SMOOTH* (adj), *SPOON* (n), and *SOON* (adv). Apart from *SCHOOL* (13–37 tokens, depending on the edition) and *FOOD* (9 tokens, except in 1557, where one token is found), these lexemes occur one to two times per edition, so *SCHOOL* is definitely overrepresented here.

Table 20. Words with /u:/ < ME /o:/ in closed syllables: distribution of vowel length indication

	1557	1582	1593	1621	1626–1635	1640	1660	1670	1677–1687
<oCe>	6	-	-	-	-	-	-	-	-
<ooCe>	38	34	23	38	37	35	35	-	-
<ooC>	-	12	11	12	12	13	14	49	50

In *The Schoole*, in 1593, the number of tokens decreases considerably (see Table 20), which is due to the split of the running head into two parts (*The Schoole* on the verso pages and *of Vertue* on the recto ones), and the consequent drop in the instances of *schoole* in this edition. The running head is not split in any other edition.

Table 20 and Figure 18 indicate that the old <oCe> pattern is used only in the first edition of *The Schoole*, in 13.6% of the tokens. In the *KS*,⁷⁵ expectedly, the <oCe>

⁷⁴ The lexeme *SCHOOL* is a loanword from Latin, but since it was present already in early Old English, and seems to have been fully naturalized, I have decided to include it into the count in this study.

⁷⁵ In Rutkowska (2013: 151–152) the tokens of *CHOOSE* (v), *MOVE* (v), and *PROVE* (v) have also been taken into account, but these have been omitted in the present study.

pattern prevails in the first three editions, but it gradually decreases in importance throughout the century, from 79% in 1557 to 1.4% in 1600; in 1580 it still accounts for 23.5% of the tokens and in 1585 for 15%, so the lack of this pattern already in the second edition of *The Schoole* is surprising.

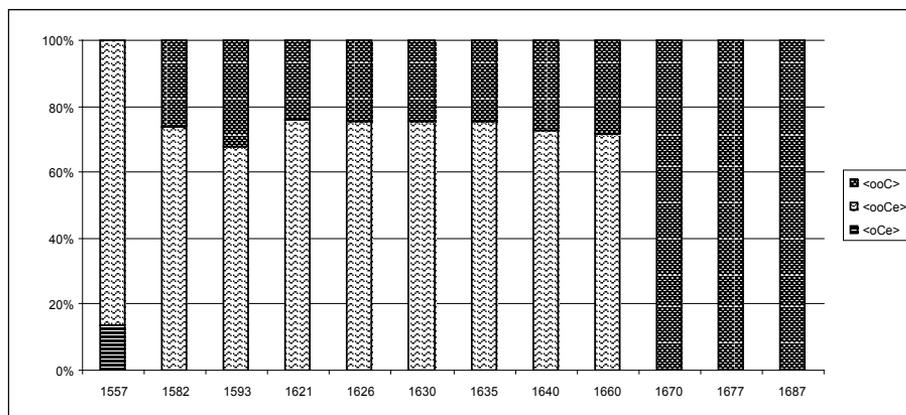


Figure 18. Words with /u:/ < ME /o:/ in closed syllables: tendencies of vowel length indication

The <ooCe> prevails between 1557 and 1660 in *The Schoole* (i.e., for over one hundred years) accounting for 86.4% in 1557, and between 67.6% and 76% in the editions published in the years 1582–1660. In the *KS*, this pattern dominates between 1556 and 1631, rising from 55% in 1557 to 85% in 1585, but it starts to decrease in 1600, and it is virtually eliminated in 1656 (i.e., earlier than in *The Schoole*).

The cumulative method of vowel length indication is fully replaced by the modern <ooC> spelling in 1670 in *The Schoole*, but already between 1582 and 1660 it accounts for 24%–27% of the tokens. By comparison, in the *KS*, single instances of the modern pattern are recorded already in 1506 and 1518, then it is dropped for eighty years, to reappear in 1600; between 1600 and 1631, it covers 20–32% tokens, with the exception of 1618, where it reaches as much as 48%; finally, it replaces <ooCe> almost entirely, with 98.5%, in the final edition.

Table 21. Spelling patterns in do: distribution

	1557	1582	1593	1621	1626	1630	1635	1640	1660	1670	1677	1687
<i>do</i>	27	-	2	4	4	22	3	10	9	47	46	45
<i>doo</i>	-	43	36	-	-	-	-	-	-	-	-	-
<i>doe</i>	4	-	5	39	41	24	44	34	38	-	-	-

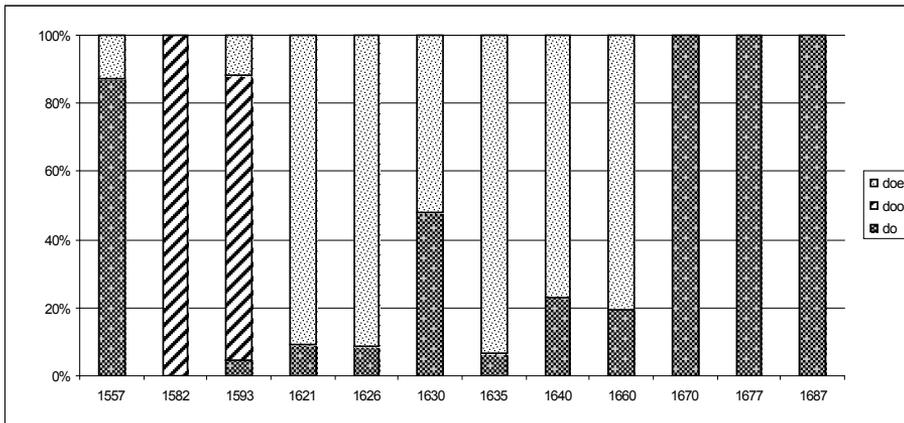


Figure 19. Spelling patterns in *do*: tendencies

There are few words in *The Schoole* containing /u:/, the reflex of ME /o:/, in an open syllable. They include *DO* (v), *TOO* (adv, always spelt *too*), and *TWO* (num, spelt *twoo* and *two* in 1557 and *two* elsewhere). Among these, only the lexeme *DO* is sufficiently common in the corpus to merit a separate comment. As can be understood from Table 21 and Figure 19, *do* is the dominant form in the first edition, covering 87% of the tokens. In 1582 and 1593 it is replaced with *doo*, which, in the former, is used by Henry Denham with surprising consistency (100% of the tokens). In 1621 and 1626 *doe* takes over the leadership among the *do* forms, accounting for approximately 91% of the tokens. In 1630 *do* becomes current again, with 47.8%, but between 1635, 1640 and 1660 *doe* retakes the lead, with 94%, 77%, and 81%, respectively. In 1670 and the remaining two editions *DO* has the modern spelling.

In the *KS*, the modern variant prevails in most editions and, surprisingly, it is used most consistently in the earliest versions of the book, especially in de Worde's edition of 1528, where it is the only spelling of *DO*, but also in the other editions published in the years 1506–1570, never dropping below 97% of the tokens. In 1580 and 1585, *do* is overtaken by *doo*, which yields 48% and 59% of the tokens, respectively. Interestingly, the printer of these two editions was probably John Charlewood (who also issued the 1593 version of *The Schoole*); this can be responsible for the popularity of *doo* in all the three editions. The modern variant is, again, used nearly exclusively between 1600 and 1611 (91–94%) in the *KS*, but its share drops in 1618, to the benefit of *doe*, which accounts for 55% of the tokens in this edition and 95% in 1631. In the final edition of the *KS*, *do* covers over 79%, and *doe* nearly 21%. In view of the high status of the modern variant in the 1656 *KS* edition, one may wonder why there are still so many instances of *doe* (over 80%) in 1660 in *The Schoole*. Perhaps the choice of the prevailing variant was determined by the fact that the latter edition was issued by Flesher, the printer of all *The Schoole* editions in the years 1626–1660, who could have been simply accustomed to this spelling.

8.3.4 Early Modern English /ɔ:/ and /o:/ reflecting Middle English /ɔ:/

The lexemes containing the reflexes of ME /ɔ:/ recorded in *The Schoole* include ABROAD (adv), BONE (n), CLOTH (n), HOPE (n), GO (v), NOSE (n), OATH (n), SO (adv and conj), SLOTH (n), STONE (n), STROKE (n), and YOKE (n). In the majority of these words, the vowel was raised to /o:/ in the sixteenth century, or at the latest, before 1650 (Lass, 1999: 85, 94–95), and started to be represented by the spelling <oa>, modeled on the digraph <ea> (Weĳna, 1978: 219). The change did not affect ABROAD (adv) and CLOTH (n), where the vowel remained mid-open (Weĳna, 1978: 219). In BONE (n), HOPE (n), NOSE (n), and STONE (n), the spelling pattern <oCe> is the only one employed in *The Schoole* editions and is the standard one in PDE. The first edition does not contain a single token of <oa>. The patterns <oaC> and <oaCe> are first recorded in the 1582 edition, in the forms *abroad* and *abroade*. The former remains the main variant of the lexeme ABROAD (adv) throughout *The Schoole* editions, but the spelling with the final <e> is also found in 1640 and 1660. No other lexemes are spelt with the digraph <oa> in the sixteenth-century editions. The situation changes in 1621, where the forms *sloath* and *stroake*, replace the previously used *sloth* (*sloth*e in 1557) and *stroke*, representing SLOTH (n) and STROKE (n), respectively, but the new forms continue to alternate with the old ones in the following editions.⁷⁶ In 1621 and later editions, <oa> can be found also in *cloath*, *sloathfull*, and *oathes*, alternating with <o>; however, these forms cannot be treated as evidence of vowel length indication because the vowel in CLOTH underwent shortening, SLOTHFUL (adj) ends in a derivational suffix containing a short vowel, and *oathes*, representing the plural form of OATH (n), ends in an inflectional suffix. The digraph <oa> is also recorded in *board* (for the noun BOARD) in 1626 and the following editions, alternating with *boord* (up to 1660), and in *y oak* (for the noun YOKE) in 1670 and in 1687, as well as in the gerund form *cloathing* (of the verb CLOTHE) in the years 1670–1687.

In the KS editions, the digraph <oa> appears in 1585 for the first time in the context which can be interpreted as likely to indicate vowel length (cf. 1582 among *The Schoole*);⁷⁷ it is recorded in *broade* (beside the earlier form *brode*), representing BROAD (adj), spelt exclusively as *broad* in the seventeenth-century editions. Between 1600 and 1656, it can also be found in *throat(e)* and *smoak(e)*, the representations of the lexemes THROAT (n) and SMOKE (n), respectively. These three lexemes are represented by altogether 20–22 tokens, depending on the edition. In 1600 and 1604, the old <oCe> pattern still accounts for some 5% of the tokens, <oaCe> for 52–55%, and <oaC> for 40–43%. In 1611, the old pattern is not recorded any more, and <oaC> starts

⁷⁶ They yield only single tokens, so no percentages are provided here.

⁷⁷ See Rutkowska (2013: 160) for the information concerning earlier (and later) occurrences in polysyllabic words.

to prevail (52%). Finally, between 1618 and 1656, the share of <oaCe> drops from 19% to 9.5%, and that of <oaC> rises from 81% to 90.5%.

In *The Schoole*, two lexemes with the reflexes of ME /ɔ:/ are represented by open syllables, i.e., so (always with the modern spelling) and go. The lexeme GO (yielding six tokens) is spelt in the modern way already in the first and second editions of *The Schoole*. However, in 1593, *goe* takes over and remains the main spelling of GO between 1621 and 1660, with only single instances of *go* in 1621 and 1640. In 1670 and the remaining editions, *go* regains its position as the only exponent of GO (the forms with inflectional endings are not counted here). By comparison, in the first edition of the KS (1506), the spelling *go* accounts for 88% of the tokens, compared to 12% reserved for *goo*, a form which does not emerge in *The Schoole* editions at all. In the years 1518–1556, *go* is the only spelling, but between 1570 and 1585, the share of *go* falls from 93% to 60%, with *goe* rising in importance. Then, *go* regains the main position in the years 1600–1611, with 95–98% of the tokens, the *goe* tokens increase from 47% to 79% from 1618 to 1631, and finally *go* covers 57% of the tokens in 1656 (see Rutkowska, 2013: 158–159 for the relevant tables and diagrams).

Although the corpus of *The Schoole* editions is too small to offer sufficient information on the tendencies concerning the spelling patterns in the word groups examined in this subsection, some findings of Rutkowska (2013: 158–160) seem confirmed here; that is, the dominance of *go* in the sixteenth century, and the temporary rise in importance of the variant *goe* in the 1630s.

8.3.5 Indication of vowel length in *The Schoole* editions: summary of changes

A comparison of the changes affecting the sets of spelling patterns within the variables considered in this section shows that the old spelling pattern <VCe>⁷⁸ is still strong in the first edition of *The Schoole* in the group of closed-syllable lexemes which contain the vowel /i:/, originating in ME /e:/ (see Figure 16), and less so in the lexemes containing the reflexes of ME /ɛ:/ and /o:/ (Figures 17 and 18). The cumulative <VVCe> patterns, including both vocalic doubling and the final <e>, and the <VVC> ones coincide for a few decades in lexemes with high vowels (originating in ME mid-close ones), but in 1670 the modern spellings are already regular in three out of four groups of words considered here in detail.

The digraph <ea> is already well established in the first edition of *The Schoole*, but the corresponding <oa> digraph starts to be used systematically as late as 1621, and is not yet stabilized in 1687, affecting the level of spelling regularization of the group of lexemes containing the reflexes of ME /ɔ:/.

⁷⁸ The capital <V> stands for a single vocalic, and <VV> for a double one.

In open-syllable words, containing /i:/, a systematic orthographic differentiation between function words (spelt with a simple vocalic) and content words (with a double vocalic) is visible already in the second edition. As regards the lexemes containing back vowels in open syllables, both the types and tokens are few, and no orthographic differentiation of this kind can be noticed. In the case of *DO*, vowel length is indicated by doubling in the 1580s–1590s, and by the addition of the final <e> in the seventeenth century, before 1670. The final <e> is also employed to emphasize the length of the vowel in *GO* in the years 1593–1660. In 1670 and subsequently, however, both lexemes are spelt in the modern way, unmarked in respect of vowel length.

In 1670 and in the later editions (as in PDE), the patterns <VCe> and <VVCe> are mostly reserved for the lexemes in which <V> corresponds to a diphthong, e.g. *KNIFE*, *RISE*, *THINE*, *MAKE*, *NAME*, *SAME*, as well as those ending in /z/ or /v/ (e.g., *LEAVE*, *CHEESE*, *THESE*).

The spelling of particular long vowels as well as particular lexemes (and groups of lexemes) seems to have become regularized by different dates. Sometimes, the house styles of some printers (e.g., Denham's consistent spelling of *DO* as *doo*) and the avoidance of homography (e.g., the spelling of the function words *THE* and *THEE*) may have played a role.

Despite a few minor differences concerning the exact time of the adoption of particular spelling patterns, the findings reported in this section generally confirm those formulated in Rutkowska (2013: 141–161), but thanks to the time span extending beyond the 1650s, the present corpus provides also information on further developments in the English orthographic system.

8.3.6 Theoreticians' opinions on the vowel length indication

The convention of doubling the vocalic to mark a long vowel goes back to the fourteenth century (Mossé, 1952: 12; Fisiak, 2004: 19). Also, the final <e> was a usual sight in medieval manuscripts. However, although the latter method is very common in early printed books, the former was apparently neglected by the early printers since it is rare in books published in the first half of the sixteenth century. The first surviving explicit recommendations of the use of these two methods for marking vowel length seem to be John Rastell's remarks published in c. 1530 (see Salmon, 1989: 297).⁷⁹ Rastell, a lawyer and printer, recommends the spellings *flee*, *knee*, *see*, *bleed*, *breed*, *seek*, *speed*, *spleen*, *week* and *ween*,⁸⁰ in the words where the vowel

⁷⁹ Brengelman (1980: 347) credits Levins, Mulcaster, and Coote with the first prescriptions of the use of final <e> to mark vowel length, and Scragg (1974: 61, 79) attributes it to Mulcaster.

⁸⁰ All these and the following examples occur in the facsimile of two pages from Rastell's book made available in Salmon (1989: 300–301).

originates in ME /e:/ (both open and closed syllables), but has also *bee* beside *be* ‘be’, *wee* beside *we* ‘we’, so he does not consistently distinguish orthographically between content and function words.⁸¹ The revival of the <eeC> pattern and the support for the employment <ee> in open syllables (which is already a variant covering one fourth of tokens in the KS editions of 1518 and 1528) could have had some impact on printers, but this is difficult to assess on the basis of the corpora taken into consideration in this study because the first editions examined here, following Rastell’s publication, come from as late as 1556 and 1557. In fact, Huloet (1552) still uses predominantly the old <eCe> and <oCe> patterns, which means that the revived rule of vocalic doubling still might not have been very widespread in the early 1550s. Yet, the second edition of this dictionary, Huloet and Higgins (1572), has <eeCe> in GREEN, KEEP, MEEK, MEET, and HEED, and <ooCe> in BOOK, COOK, LOOK, and SOON, but <ooCe> is recorded in both editions of this dictionary in MOON, NOON, and ROOT, which suggests that the cumulative spelling method started to be used earlier in the group of words containing the reflexes of ME /o:/ than in those with ME /e:/. This correlates with the findings in *The Schoole* and the KS, but the process seems to be more advanced in both Huloet (1552) and Huloet and Higgins (1572). So does the spread of <ee> in open-syllable content words, for instance in DEGREE, KNEE, THREE, and TREE (FREE and SEE start to follow this pattern in the second edition). Such spellings are common in normative writings from the second half of the sixteenth century. The doubling of the vocalic is also occasionally recorded in function words (*bee*, *hee*, *wee*) in Hart (1569, 1570), Laneham (1575), Bullokar (1580b), Coote (1596), Evans (1621), and regular in Hodges (1644, 1649, and 1653) and Wharton (1654). Huloet and Higgins (1572) has *wee* and *yee* as headwords (also numerous instances of *hee*, *mee*, *shee*, and *thee* in definitions and examples). The form *thee*, which follows the spelling tendencies of content words, is recorded already in Huloet (1552). Later, Coles (1674: 15) lists both single and double <e> variants of BE and ME, but provides only the modern spelling for WE. Nonetheless, although the spelling of <ee> in function words is quite widespread in normative writings, apart from *thee* (temporarily also *hee*, *wee*, and *yee*), these do not catch much ground in the editions of *The Schoole* and of the KS.

Dobson (1957, I: 44) reports that, in the mid-sixteenth century, John Cheke prescribes the use of double vocalics to indicate vowel length but employs both this and the cumulative <VVCe> method in his writings. In contrast, his contemporary Thomas Smith proscribes the use of silent letter and recommends diacritics (Dobson, 1957, I: 51). Surprisingly, although in his earlier unpublished manuscript (1551) he claims that the final <e> should be abolished (Dobson, 1957, I: 63, 69), a few years later Hart (1569: 33r) assures his readers that it should be preserved, and seems to favour the <VVCe> in his own books (e.g., *keepe*, *neede*, *schoole*, *soone*). In the group of words with the reflexes of ME /e:/ and /o:/, the cumulative patterns, <eeCe> and

⁸¹ Admittedly, he employs mostly *be* and *we*, and only single instances of *bee* and *wee*.

<ooCe>, predominate in a number of theoreticians' writings in the sixteenth and early seventeenth centuries (e.g., Bullokar, 1580a and 1580b; Clement, 1587; Puttenham, 1589/1968; Coote, 1596; Gil, 1619; Evans, 1621; and Prat, 1622, with occasional resort to <eeC> and <ooC>.⁸² Yet, the use of <ee> is not universally appreciated as a method of vowel length indication. Mulcaster (1582: 118–119) is its declared adversary, but allows it in inflectional forms (which he calls *deriuatiues*), for instance, *tre* but *trees*, *agre* but *agrees*, and *se* but *sees*. Instead, he recommends old-system spellings such as *quene*, *sene*, *wene*, *betwene*.

As regards the words containing the reflexes of ME /ε:/, Rastell (c. 1530) prescribes the spellings *mede* 'meadow', *rede* 'read', *fle* 'flay, skin', *se* 'sea' and never employs <ea>, so he cannot be held responsible for the high increase of spellings containing this digraph in the mid-sixteenth century. According to Scragg (1974: 67), the rise in the popularity of <ea>, a convention inherited from Anglo-Norman scribes, was due to a transfer of scribes' orthographic practices to printing houses during the sixteenth century. However, it is worth emphasizing that *great* and *greate* are the variants found already in the early sixteenth-century editions of the *KS*; for instance, *great* covers 41%, and *greate* 11%, of the tokens in 1506, and *great* covers 96% in 1518. The extension of these patterns to other lexemes could be then interpreted as part of lexical diffusion (see also Taavitsainen, 2000: 144; Nevalainen, 2012: 146; Rutkowska, 2013: 167). This diffusion is likely to have been enhanced by the presence of relevant spellings in works of reference, such as dictionaries. For example, in Huloet (1552) as well as in Huloet and Higgins (1572), <eaCe>, the dominant spelling of words containing ME /ε:/ from the mid-sixteenth century until the early seventeenth century in the *KS* and *The Schoole*, is already regular in *EAT*, *HEAT*, *MEAT*, *SPEAK*, and *TEACH*, which could have supported the spread of the pattern in the books printed in the 1580s. This cumulative pattern is also used by Hart (1569) in *MEAN*, *READ*, *SPEAK*, and *WEAK* (but not in *EACH*, spelt *eche*), by Puttenham (1589/1968) in *BREAK*, *EAT*, *HEAL*, *HEAT*, and *MEAT*, but not in *GREAT* (spelt *great*), *TEACH* (*teach*) and *EACH* (*each*, *eche*, and *ech*), and by Cawdrey (1604, 1609, 1613, and 1617) in *HEAT*, *MEAT*, and *BREAK*.

Although Mulcaster (1582) appreciates the old <eCe> pattern for marking the vowel originating in ME /ε:/, he is simultaneously the first authority to systematically promote the modern spelling patterns <eaC> and <ooC> for lexemes such as, for example, *BREAK*, *DEAL*, *EAT*, *MEAN*, *MEAT*, *READ*, *SEA*, *SPEAK*, *TEACH* (but not *EACH*, spelt mostly *ech*), *BOOK*, *COOK*, *DOOM*, *MOON*, *SMOOTH* and *SOON*. Nonetheless, in later normative writings, the variants with <eaCe> and <eaC> still often coincide, and <ooCe> predominates in, for instance, Clement (1587), Puttenham (1589/1968), Coote (1596), and Gil (1619). Eventually, by the 1640s, the consistent modern distribution

⁸² The lexemes *BLOOD* and *FLOOD* have more spelling variants but they are irrelevant here, because they were not recorded in *The Schoole* editions (for more information see Rutkowska, 2013: 154–156, 161, 165–166).

of the patterns <eeC>, <eaC>, and <ooC> becomes the norm in Daines (1640), Hodges (1644, 1649, 1653), and Wharton (1654), though later writers still use older patterns, at least occasionally (for instance, Ellis (1660) has both *book* and *booke*).

Among the lexemes subject to orthographic experiments aiming at vowel length indication, DO merits a separate comment due to its frequency and the range of variants. In the sixteenth-century editions of *The Schoole* and the *KS*, until 1580, it is almost uniformly spelt in the modern way. Then, in the 1580s and 1590s, the variant *doo* is the major or even the only spelling of DO (Denham's 1582 edition of *The Schoole*). As regards normative writings, *doo* is recorded (in variation with *do* and *doe*) a few years earlier, in Huloet and Higgins (1572), and it is the only spelling of DO in Laneham (1575). Puttenham (1589/1968) favors *doo*, but employs also *doe*, and occasionally *do*. On the whole, *doo* is not a widespread variant. Though he also publishes his work in in the 1580s, Mulcaster (1582) uses *do* consistently (without a single instance of *doo* or *doe*). Additionally, Baret (1574) employs a rather exotic variant *dooe* with vocalic doubling combined with the final <e>, but his usage does not seem to have had any impact on other writers. In the early seventeenth century, *do* regains ground in the editions examined here, only to cede it to *doe* in the 1620s and 1630s. This variant was already regular in Hart (1569 and 1570) and Bullokar (1580b), though they occasionally resort to *do*. Clement (1587) uses both *do* and *doe*, without clear preference. In Coote (1596), there are slightly more tokens of *do* than of *doe*. Yet, Coote's original orthography is modified by the publisher of later editions, and in the 1655 edition of this handbook only *do* is used. As regards lexicographers, Cawdrey (1604) has *doe*, *doo*, and *do* but retains just *doe* in the remaining editions of his dictionary (1609, 1613, and 1617); Cockeram uses *doe* between 1623 and 1639 but switches to *do* in 1655. Eventually, between 1656 and 1670, the modern spelling starts to dominate again in the *KS* and *The Schoole*, respectively.

The spelling of the words containing the reflexes of ME /ɔ:/ is not uniform across lexemes (compare, for instance, *coat* and *bone*), so it is not surprising that even in the last editions of the books examined in this study, there is some diversity. As for the views of theoreticians and lexicographers, Huloet (1552) as well as Huloet and Higgins (1572) have *othe*, *smoke*, *stroke*, *yoke*. They have spelling variation in some other lexemes (e.g., *abrode* ~ *abroade*, *bote* ~ *boate*, *brode* ~ *broade*, *throate* ~ *throate*). Mulcaster (1582: 118) treats the digraph <oa> as superfluous, because to him “the qualifying *e*” sufficiently indicates the length of the preceding vowel (e.g., in *bone*, *bote*, *cote*, and *mon*). Nonetheless, it is recorded in Clement (1587, e.g., in *abroade*, *throate*) and Puttenham (1589/1968, e.g., in *abroad*, *broad*, *boast*, and *smoake*). Coote (1596) recommends such spellings (e.g., *abroad*, *broad*, *boat*, *cloathes*, *coate*, *goat* and *oath*). Also the seventeenth-century orthoepists, lexicographers and grammarians use <oa> regularly (e.g., Cawdrey, 1604–1617; Gil, 1619; Evans, 1621; Cockeram, 1623, 1626, 1639, 1655; Hodges, 1644; and Wharton, 1654), mainly in the lexemes ABROAD, BOAT, BROAD, COAT, GOAT, LOAD, and THROAT. Cockeram (1623) has <oa> also in SMOKE, YOKE (used as a verb). His spellings *smoake* and *yoake*, recorded in the editions between

1623 and 1639, are changed to *smoak* ~ *smoke* and *yoke* in 1655, and *smoke* and *yoke* in 1670. Variation continues also in later authors; for example, Coles (1674) lists the spellings *smoak* and *stroak*, but *yoke*, whereas Ellis (1680) has *smoak*, but *stroke*, *yoke*. Some of the above mentioned authorities could have influenced the printers of the editions under consideration as regards the increase of spellings with <oa>, but the level of variation in this set of lexemes among the theoreticians precludes any evidence of strong and concerted influence on the preferences for particular forms among contemporary printers.

8.4 Conclusions

Several conclusions can be drawn on the basis of the results of the present study. First of all, a few stages can be identified in the process of orthographic regularization in the corpus under analysis. The most spectacular changes are visible between the 1557 edition and the 1582 one, both in the distribution of the vocalics <y> and <i> and in the indication of vowel length, consisting in the replacement of (the remnants of) the old system <VCe> pattern with the new, <VVCe> one. Two other important dates are 1640 and 1670. The former corresponds to the establishment of the graphemic distributional principles without exception, and the latter to the full installation of most modern vowel length indication patterns, at least in *The Schoole* editions. Salmon (1999: 32) refers to the year 1660 as “marked by the establishment of an orthography which was, in most respects, that of the twentieth century”. The findings of the present study suggest that this boundary should perhaps be moved to the year 1670. One can argue, obviously, that the relatively small size of the corpus limits the possibility of generalizing the results, but in fact the findings confirm the main trends identified by Rutkowska (2013) for the *KS*, a much larger corpus, despite some time differences concerning the settlement of particular features.

As concerns the analysis of particular graphemes, the difference in typeface as well as the difference between lower-case and upper-case letters should be taken into consideration in assessing the findings concerning graphemic usage in early modern books printed in English. Also, the distribution of the graphemes <v> and <u> as well as <i> and <j> in the corpus under examination casts some doubt on the dating of *The Schoole* editions allegedly published in 1626, 1630, and 1635. My findings suggest that the 1626 edition could have been printed after 1630 (and possibly also after 1635). Thus, the analysis of orthographic features can affect the dating of particular documents in cases where the date has been reconstructed, and not explicitly stated in the colophon.

With regard to vowel length indication, the methods (adding the final <e>, vocalic doubling, and both) and speed of the regularization process depend on individual variables (i.e., the groups of lexemes to which a given word belongs) and the division into these groups is connected with the ME vowel in the stem of a word. With hindsight, it seems that at least some spelling patterns established in the early

modern period are used to avoid homography, so they observe the heterographic, rather than phonemic (or phonological), principle.⁸³ For example, MEET, containing a reflex of ME /e:/ is spelt differently from MEAT, containing a vowel derived from ME /ɛ:/. However, the fact that printers spell MEAT, SEA and MEET, SEE, differently, and do not use any orthographic distinction between the words such as BREAK, GREAT and MEAT, SEA, on the one hand, and theoreticians do not (yet) suggest the this should be changed, implies that neither the diphthongization (of the reflex of ME /ɛ:/) nor the merger (of ME /e:/ and ME /i:/) had been completed by that time.⁸⁴ Consequently, these spellings are likely to have coincided with the phonemic principle at the time when they were established – they ensured the orthographic differentiation between mid-close and mid-open vowels.

The “house styles” of particular printing houses are difficult to identify on the basis of *The Schoole* corpus but, at least in one edition, this turns out to be possible. Henry Denham, the printer of the 1582 version of *The Schoole*, is surprisingly consistent with regard to the spelling of DO (always *doo*) and the use of word-medial vocalic <i>. The combination of these two features cannot be easily correlated with the recommendations or usage of any particular language authority. In turn, the spread of the digraph <oa> from ABROAD to other lexemes in the 1621 and subsequent editions of *The Schoole* could have been triggered or at least supported by the lexicographers and other authors of publications on language usage.

On the whole, some more or less exact correlations between the recommendations of theoreticians and the practice of the printers can be made, but it is difficult to prove a cause-and-effect relationship between the two. For example, a few years after Butler (1633) prescribed the modern distribution of <v> and <u>, this principle started to be generally observed, but the change was not sudden, and rather clear signs of it can be identified already in the 1626 edition of *The Schoole*.

It is also debatable to what extent the new spelling patterns and usages were the ideas of theoreticians and to what extent they were a product of printers’ house styles, or else still, of the negotiations between theoreticians and printers during the publication process. Hence, the question of the extent to which theoreticians, on the one hand, and printers, on the other, have impacted on the regularization of Early Modern English spelling is likely to remain a chicken-and-egg problem for quite a long time. Definitely, more studies based on other sets of editions of early printed books correlated with investigations into language authorities’ views are needed to refine our overall knowledge concerning the stages and speed of the orthographic regularization and standardization in English.

⁸³ See Rutkowska (2012) and Rutkowska and Rössler (2012) for a discussion on the principles behind the orthographic rules in the English orthographic system.

⁸⁴ At least until the 1670s, when the relevant orthographic rules had already been largely settled; Coles (1674: 13, 15) provides the forms *meet* and *meat* as well as *reed* and *read* as sets of homophones.

List of abbreviations

adj	adjective
adv	adverb
C	consonantal
conj	conjunction
EEBO	<i>Early English Books Online</i>
ESTC	<i>English Short Title Catalogue</i>
GVS	Great Vowel Shift
KS	<i>Kalender of Shepherdes</i>
ME	Middle English
n	noun
num	numeral
OED	<i>The Oxford English Dictionary Online</i>
PDE	present-day English
pro	pronoun
STC	Jackson et al. (1976)
v	verb
V	vocalic
Wing	Wing (1982–1998)

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