Phonemes, graphemes and phonics for Liverpool English

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1. Introduction

This document is intended mainly to be a resource for those teachers and other professionals who have an interest in spoken English and how it is encoded in the spelling system. We hope that this will include those using reading schemes which are fully or partly phonics-based, such as that advocated by the National Literacy Strategy for England. Most specifically, this piece is intended for those who teach spelling to pupils who have 'Liverpool' or 'Merseyside' accents, and for others who have an interest in this area. The issues under examination here are thus considered from the perspective of those who speak what we call 'Liverpool English', which, as we will see, differs from other varieties of English in a number of important ways. These differences mean that the sets of correspondences between sounds and letters (that is, between 'phonemes' and 'graphemes', as these things are usually called in the phonics literature and elsewhere) that have been developed for other varieties do not fit Liverpool English perfectly. They need some modifications, and this document aims to indicate what these modifications are.

We do not give a full description of Liverpool English here, nor do we provide anything like a full phonics scheme. We focus only on the *pronunciation* of Liverpool English (so, only on the Liverpool English accent, not on the variety's lexical or grammatical characteristics), and we do not consider the precise ways in which speech is encoded (speech to text: spelling) or decoded (text to speech: reading) in any detail. Rather, we focus on the major distinguishing characteristics of this particular accent, many of which are shared by other varieties of English, and consider how these translate into phoneme to grapheme correspondences. The lists of graphemes that we present are not exhaustive, but do include several of the more common ones. We have taken much here directly from the previous similar pieces for Manchester English (Barry 2003) and Newcastle upon Tyne English (Watt 2003), and while we do not refer to these two pieces any further in what follows, we advise the interested reader to consult them, and we acknowledge that a fair amount here has been taken word-forword from them. The structure of this document is as follows: the rest of this initial section 1 continues with the introduction of the basic issues that underlie the rest of the document, and then, in section 2, we turn to discuss the key phoneme-grapheme correspondences for the vowels of Liverpool English, and, in section 3, we do the same for consonants.

1.1. Liverpool English (and other varieties of English)

In England, most phonics schemes are designed on the basis of the phoneme to grapheme correspondences that work for the closest thing that there is to a neutral, 'standard' accent. There isn't really a standard accent in England, but the closest thing is the accent often called 'RP' (or 'Received Pronunciation', or 'the Queen's English', or sometimes even 'BBC English'). RP is spoken by people all over England, although in most places only very few people speak it – the majority of people speak

the normal local accent. For example, in Liverpool, there are a very few people who speak RP, while most people speak the accent we are focusing on here. Some people speak both, of course, and many people speak a form of Liverpool English that is influenced in some ways by RP, or by other accents. It could be argued that all of these are 'forms of Liverpool English', but, to keep things simple, when we talk about Liverpool English in this piece, we mean a fairly broad accent, which is not particularly close to RP. It is the accent that is popularly called 'Scouse', and it is spoken throughout the city of Liverpool and in many other parts of urban Merseyside, such as Birkenhead and Knowsley, and seems to be spreading somewhat into the rural areas around Merseyside. It is still quite closely tied to the urban area in and around Liverpool, however, and while it has much in common with nearby accents, such as those of Lancashire, Manchester and Cheshire, and with other accents from the north of England, it also differs from them in several interesting ways, and some of its features link it more closely with Irish English accents than with others from the English North.

Everyone varies in the way they speak from situation to situation, whatever accent they have, and there is also considerable variation between speakers in any one geographical area – one speaker may use local features to a greater extent than another, for example. However, it is still reasonable to generalise over all the speakers of an accent because it is safe to assume that the majority of speakers will have certain sets of features in common. We do this below for broad Liverpool English, but where relevant we also note some of the major differences between speakers.

The most detailed description of accents of English can be found in Wells (1982). This has a few pages which focus on Liverpool English (in volume 2, pages 371-373), as does Hughes, Trudgill & Watt (2005). More academic and technical descriptions of Liverpool English can be found in Watson (2006, to appear), Honeybone (2001) and Knowles (1973). The latter of these is the most comprehensive, but it has not been properly published and is not always easy to follow for non-specialists (this last point will probably also apply to the other texts mentioned here). RP is described in detail in many places, and full pronouncing dictionaries exist for it, transcribing large numbers of words phonetically, such as Jones (2003), and Wells (2000). Because RP is the most frequently described accent of England, it is understandable that it should be the basis for general phonics schemes used in England. As we discuss in section 1.2, however, it is important to recognise where phonics schemes devised for RP do not work for other accents, such as Liverpool English. Other accents of English in Britain are often described by comparing them to RP (and because of this, RP is sometimes called a 'reference accent') and we do this below at points for Liverpool English in sections 2 and 3. At times we also glean information from the most comprehensive study of English spelling, Carney (1994), which goes into great detail about the graphemes of English.

1.2. Why we need different phonics for different accents

As far as spelling and reading are concerned, the most important characteristics of someone's accent are (i) the inventory of phonemes, that is, what distinctive sounds there are in the accent, and (ii) the distribution of these phonemes, that is, in which words and in which positions in words the phonemes occur. For this reason, a fair amount of the discussion in sections 2 and 3 aims to set out what the phonemes of Liverpool English are. It is not really important to the tasks of encoding and decoding

(that is, of spelling and reading) how a particular phoneme is pronounced (or 'realised') in an accent, but we do discuss some of the most characteristic realisations of certain Liverpool English phonemes below, in part because these patterns of phoneme realisation may cause confusion for non-local teachers, but also because they illustrate some of the clearest ways that Liverpool English differs from RP.

An important theme in much work on phonics is to recognise how the graphemes of spelling (which can each be either one letter or a group of letters that function together) correspond to the phonemes used in the pronunciation of a language. This is clearly the case in the scheme used in the National Literacy Strategy ('NLS') for England (see DfEE 1999, DfES 2004), which is the scheme that has informed this current document, and which we refer to explicitly below. The NLS is based, almost exclusively, on the phoneme-grapheme correspondences that hold for RP, and it is this fact that makes this current document necessary.

The main reason why different accents, such as RP and Liverpool English, need at least slightly different phonics is that they differ in terms of the important accent characteristics described above, that is, in terms of (i) the number of phonemes that they have, and (ii) the way in which phonemes are distributed in sets of words. So, when the NLS materials state that English has "26 letters to represent the 44 phonemes" (DfEE 1999: 2), this may be true for RP, but it is not true for Liverpool English, where a speaker is more likely to have 41 phonemes. The NLS materials continue, stating quite rightly that "we should be teaching children to ... recognise the common spellings for each phoneme (phoneme-grapheme correspondence)" (DfEE 1999: 3). The problem is that it is not really helpful to teach a child only the phonemegrapheme correspondences for RP if the number and distribution of phonemes in the accent that the child speaks is different from those in RP, as it will likely end up confusing them. Again, quite rightly, the NLS materials explain how the "scrutiny of research and its implications for classroom teaching" done for the NLS indicate that the "most effective phonics instruction teaches children to identify phonemes in spoken language first, then to understand how these are represented by letters and letter combinations (graphemes)" (DfEE 1999: 3). Of course, this can only really work if such instruction is based on an accurate description of the phonemes in the accent that the child speaks. It could easily lead to confusion if (i) children are told they should be able to recognise a difference between the spelling of two phonemes if they do not actually have the two phonemes in their accent and so cannot hear the difference, or if (ii) when learning which graphemes might be used to spell a particular phoneme they are not told of some of the possibilities that exist for their accent because these phoneme-grapheme correspondences do not work in RP.

It is well known that English spelling is difficult to learn because there are a host of irregularities and oddities. There are many regularities, too, however, where one phoneme is very often represented by one or a small number of graphemes, or where one grapheme very often represents one or a small number of phonemes. One of the things that phonics schemes seek to do is to make these regularities explicit. In sections 2 and 3 we discuss some (but by no means all) of the common graphemes used to represent the phonemes of Liverpool English. We focus our discussion on those cases where there are differences between the phoneme-grapheme correspondences that hold for Liverpool English and those that hold for RP, because these are the cases where the NLS scheme does not work for Liverpool English. Of course, teachers cannot all be expected to be expert phoneticians or to know all there

is to know about the accents of English, but we hope that the material below will help to avoid some of the confusions that could arise if those who have Liverpool accents were only taught using materials designed for RP.

1.3 Symbols

We need to differentiate between two main kinds of symbols in the following sections: (i) the symbols used to represent the phonemes of an accent and (ii) the letters that make up the graphemes of English. A straightforward convention exists for (ii) – letters, which make up graphemes, are indicated by angled brackets (<>), so any symbols or strings of symbols between angled brackets are graphemes (for example, , <r> and <ee> in *three*). When discussing (i), some confusion can arise because different systems are in use. In this document, we use symbols from two systems: (ia) the symbols used in the International Phonetic Alphabet (the 'IPA'), and (ib) the symbols used to represent English phonemes in the NLS. Academic phoneticians and phonologists have developed (ia) to provide one symbol for each of the sounds found in any language, so it is not specifically designed with English in mind. Most academic work on accents of English, however, such as that listed above in section 1.2, uses the IPA, and so we do below, too. The symbols in (ib) have been developed on the basis of English, and are typically simply devised by choosing one of the most common graphemes that are used to write a particular phoneme in RP as the symbol for that phoneme, so they may seem to make more obvious sense. They are rather ad hoc, however, and systems of this sort can differ from phonics scheme to phonics scheme. In both (ia) and (ib), the symbols for phonemes are indicated by slash brackets (//), so any symbols used here between slash brackets indicate phonemes. In sections 2 and 3 we use both system (ia) and system (ib), as they are simply two different ways of transcribing the phonemes of an accent, and they often correlate on a one-to-one basis. We give priority to (ia), but the symbols used in (ib), taken from the DfES publication Playing with sounds: a supplement to Progression in Phonics (2004), are also normally given in parentheses, after the transcription according to (ia). To make this (hopefully) clearer, we give here transcriptions for the two words three and quick (which have three and four phonemes and graphemes in them, respectively) in all three systems, in (1), below:

1	1	١
ſ	T	J

(ia)	/0/	/r/	/i:/
(ib)	(/th/)	(/r/)	(/ee/)
(ii)		<r></r>	<ee></ee>

(ia)	/k/	/w/	/I/	/k/
(ib)	(/k/)	(/w/)	(/i/)	(/k/)
(ii)	<q></q>	<u></u>	<i></i>	<ck></ck>

2. Vowel phonemes and graphemes in Liverpool English

The basic vowel system of Liverpool English is given in (2), below. This sets out the vowel phonemes that exist in the accent, transcribed first in system (ia), and then in system (ib), and then gives a word in which the phoneme occurs, where the grapheme that represents it in the word – a symbol of type (ii) – is underlined.

(2) Liverpool English vowel phonemes

vowel phoneme (IPA)	NLS phoneme symbol	example word	vowel phoneme (IPA)	NLS phoneme symbol	example word	vowel phoneme (IPA)	NLS phoneme symbol	example word
/I/	(/i/)	p <u>ig</u>	/i:/	(/ee/)	sw <u>ee</u> t	/eɪ/	(/ae/)	p <u>ai</u> n
/ɛ/	(/e/)	р <u>е</u> д	/ɛː/	(/ur/),(/air/)	b <u>ur</u> n	/aɪ/	(/ie/)	tr <u>ie</u> d
/a/	(/a/)	c <u>a</u> t	/aː/	(/ar/)	c <u>ar</u> t	/31/	(/oi/)	c <u>oi</u> n
/ŋ/	(/o/)	l <u>o</u> g	/ว:/	(/au/),(/ure/)	t <u>or</u> n	/ɛʊ/	(/oe/)	r <u>oa</u> d
/ʊ/	(/oo/),(/u/)	p <u>u</u> t	/uː/	(/ue/)	m <u>oo</u> n	/au/	(/ow/)	d <u>ow</u> n
/ə/	(/er/)	b <u>a</u> nana				/iɛ/	(/ear/)	f <u>ear</u>

For those familiar with the NLS, (2) can be compared with the chart on page 15 of DfES (2004), which shows the NLS system (ib) for RP only (the NLS chart is reproduced here in the appendix).

In the rest of this section 2, we discuss certain complications that may not be clear from the table in (2), and consider some more of the graphemes that are used to represent some of the phonemes. We have picked out what seem to us to be the most important points to discuss here, and leave aside certain others that would bear discussion in a fuller treatment of the issues.

2.1. Liverpool English /u/ (NLS /oo/, /u/)

For most speakers of Liverpool English (like the speakers of other Northern accents) the vowel /u/ is found in words such as <u>put</u>, <u>could</u>, <u>foot</u>, <u>hut</u>, <u>cud</u>, <u>putt</u>, and this means that /u/ in Liverpool English has a wider distribution than does /u/ in RP. The precise pronunciation (or 'realisation') of the vowel may differ between speakers, but broad Liverpool speakers will have the same vowel in all these words, which means that the graphemes which represent the phoneme /u/ in Liverpool English include:

(3)	<u></u>	as in	p <u>u</u> ll, s <u>u</u> gar, c <u>u</u> t, s <u>u</u> n	<ou></ou>	as in	sh <u>ou</u> ld, y <u>ou</u> ng
	<00>	as in	<u>goo</u> d, <u>foo</u> t, bl <u>oo</u> d	<0e>	as in	d <u>oe</u> s
	<0>	as in	w <u>olf, mo</u> nth, s <u>o</u> n			

However, for some speakers in Liverpool, whose accents are modified towards RP, the vowel in the words hut, cud and putt (along with many others) differs from that in put, could and foot (and others). This is the same sort of situation as that found in RP, and is the reason why the NLS system has two vowel phoneme symbols which correspond to the one phoneme in broad Liverpool English. For those speakers who have two phonemes, like in RP, one will be pronounced like /u/, and the other may be the same as the vowel an RP speaker would use in these words, or may be slightly different, but in either case there will be an additional vowel, which we can transcribe using the IPA symbol $/\Lambda$ (in accents which have two phonemes in these sets of words, this symbol corresponds to the NLS symbol /u/, and the symbol /u/ only corresponds to NLS /oo/). Further examples of words containing the phoneme /u/ in broad Liverpool English are shown in (4) below (in both (4a) and (4b)). In RP, and Liverpool English that is modified towards RP, $/\Lambda/$ is used in the lower set of words (4b), and $/\nu$ is only used in the words in (4b). (A third possibility is that a speaker will use the /ə/ vowel in the words in (4b); there is much variation between speakers and even between utterances from the same speaker on these points).

	<u></u>	<0	0>	<ou></ou>	<0>	<0e>
(4a)	<u>pu</u> t	<u>goo</u> d	l <u>oo</u> k *	sh <u>ou</u> ld	w <u>o</u> lf	
	<u>fu</u> ll	w <u>oo</u> d	b <u>oo</u> k *	c <u>ou</u> ld	w <u>o</u> man	
	b <u>u</u> ll	st <u>oo</u> d	c <u>oo</u> k *	w <u>ou</u> ld		
	p <u>u</u> sh	<u>foo</u> t				
	s <u>u</u> gar	w <u>oo</u> l				
	c <u>u</u> shion					
(4b)	c <u>u</u> t	bl <u>oo</u> d		en <u>ou</u> gh	m <u>o</u> ney	d <u>oe</u> s
	h <u>u</u> t	fl <u>oo</u> d		y <u>ou</u> ng	m <u>o</u> nth	
	p <u>u</u> tt				s <u>o</u> n	
	s <u>u</u> n				m <u>o</u> ther	
	l <u>u</u> ck				с <u>о</u> те	
	t <u>u</u> ck				M <u>o</u> nday	

(4) Liverpool English /u/ (NLS /oo/,/u/) and RP /u/ (NLS /oo/) vs /A/ (NLS /u/)

The words marked with an asterisk (*) do not have the phoneme / υ / in very broad Liverpool English (and so perhaps do not really belong in this table) – rather, they have the phoneme / υ / (NLS / υ /). It seems likely that this feature is changing, though, and is occurring less frequently in younger people, who have / υ / in these words, as in RP (which is why the words are in the table at all). This situation is discussed further in the next section.

2.2. Liverpool English /uː/ (NLS /ue/)

As an example of more detailed information about the phoneme-grapheme correspondences that apply to Liverpool English, (5) sets out a good number of the graphemes that correspond with the phoneme /u:/ (NLS /ue/), with several example words for each of the graphemes (a few other graphemes are possible, too). A comparison of (4) and (5) shows one of the complications of English spelling, namely that one grapheme can correspond to more than one phoneme, so, for example, <00> can represent both /u/ and /u:/ in Liverpool English.

<ue></ue>	<ue></ue>	<00>	<ou></ou>	<0>	<ew></ew>
t <u>u</u> n <u>e</u>	bl <u>ue</u>	s <u>oo</u> n	gr <u>ou</u> p	d <u>o</u>	n <u>ew</u>
r <u>u</u> d <u>e</u>	tr <u>ue</u>	c <u>oo</u> l	w <u>ou</u> nd	t <u>o</u>	<u>few</u>
h <u>uge</u>	cl <u>ue</u>	<u>foo</u> d		wh <u>o</u>	fl <u>ew</u>
r <u>u</u> l <u>e</u>		l <u>oo</u> p			cr <u>ew</u>
		r <u>oo</u> m			
		l <u>oo</u> k *			
		<u>boo</u> k * c <u>oo</u> k *			
		c <u>oo</u> k *			

(5) Graphemes used to represent Liverpool English /u:/ (NLS /ue/)

As discussed in section 2.1, the words marked in (5) with an asterisk may for some speakers have a /u:/ in Liverpool English. For some speakers they may have /u/, and still other speakers may vary in this feature, sometimes using /u:/ and sometimes using /u/. These are words where $\langle 00 \rangle$ is followed by $\langle k \rangle$.

We do not set out such detailed information for most of the correspondences that exist between the graphemes and phonemes of Liverpool English in this document, but the principle behind it will be clear.

2.3. Liverpool English /ə/ (NLS /er/) and / ϵ / (NLS /e/)

The vowel $\frac{3}{2}$ (which is called *schwa*) can be spelt using a wide range of graphemes, including the following:

(6)	<a>	as in	<u>a</u> long, <u>a</u> bove, <u>a</u> way
	<e></e>	as in	kitch <u>e</u> n, chick <u>e</u> n, pavem <u>e</u> nt
	<u></u>	as in	<u>u</u> pon, col <u>u</u> mn
	<ai></ai>	as in	mount <u>ai</u> n
	<au></au>	as in	rest <u>au</u> rant

Schwa does not occur in Liverpool English in quite the same set of words that have it in many other accents, including RP. So, for example, words like those in (7) often do not have schwa in broad Liverpool English accents, rather, they can have $\epsilon/(NLS/e)$ instead.

(7) <er> as in broth<u>er</u>, daught<u>er</u>, hung<u>er</u> <or> as in sail<u>or</u>, tail<u>or</u>

Also, in unstressed prefixes such as *con-* (*com-*), *ex-* and *ad-*, where RP and some other accents typically have a 'reduced' vowel (schwa and /I/ are often seen as 'reduced' vowels when they occur in unstressed syllables), Liverpool English speakers can use 'full vowels' rather than reduced vowels, as in (8), although there is variation among Liverpool English speakers, and reduced vowels can also occur here.

(8) /p/ (rather than /ə/) in computer, confirm
/ε/ (rather than /I/) in examine, experiment
/a/ (rather than /ə/) in advantage, advice

2.4. Liverpool English /ɛː/ (NLS (/ur/), (/air/)

For most speakers of Liverpool English the vowel $/\epsilon$:/ is found in words such as *nurse*, *bird*, *verse*, *square*, *hare*, *pair* (which means that it has a wider distribution than does the closest equivalent, $/e \rho$ /, in RP). The precise pronunciation (or 'realisation') of the vowel can differ between speakers, but broad Liverpool speakers will have the same vowel in all these words. This means that the graphemes which represent the phoneme $/\epsilon$:/ in Liverpool English include:

(9)	<ir></ir>	as in	b <u>ir</u> d, c <u>ir</u> cle	<air></air>	as in	p <u>air</u> , ecl <u>air</u>
	<ur></ur>	as in	n <u>ur</u> se, c <u>ur</u> se	<are></are>	as in	squ <u>are</u> , h <u>are</u>
	<er></er>	as in	v <u>er</u> se, al <u>er</u> t			

Most Liverpool English speakers realise this phoneme as a vowel which is rather like a longer version of the phoneme $\epsilon/(NLS / e/, as in get)$, but some speakers realise it more like schwa / $\partial/(NLS / er/, as in away)$. This second kind of realisation is the same as is found in all these words in many Lancashire accents.

For some speakers in Liverpool, however, who either speak RP or have accents that are modified towards RP, a similar situation holds to that which we saw for Liverpool English /u/ in section 2.1. For these speakers, as in RP generally, and most other accents, the vowel in the words *nurse*, *bird* and *verse* (along with many others) differs from that in *pair*, *square* and *eclair* (and others). Because RP uses two different vowel phonemes in these sets of words, this again is the reason why the NLS system has two vowel phoneme symbols (/ur/ and /air/) which correspond to the one phoneme in broad Liverpool English. For those speakers who have two phonemes, like RP, one of them will be pronounced like a longer version of /ɛ/ (in RP, this is /eə/ = NLS /air/), and the other will be like a longer version of /ə/ (in RP, this is /s:/ = NLS /ur/).

2.5. Liverpool English /ɔː/ (NLS /au/, /ure/)

Like the cases discussed in sections 2.1 and 2.4, the vowel /ɔ:/ has a wider distribution in Liverpool English than it does in RP, and so there is a difference between the phoneme-grapheme correspondences that exist in the two accents. Liverpool English has /ɔ:/ in words such as *torn, warn, haul, call, sure, tourist, moor*. Some RP speakers have a different vowel in words like *torn, warn, haul, call* than they do in words like *sure, tourist, moor*. For such RP speakers (who may, of course, live in Liverpool), the first set of words typically has /ɔ:/ (NLS /au/) and the second has /uə/ (NLS /ure/), although a merger of these two sets is ongoing in many accents that retain this distinction, including some forms of RP, to make them more like the situation described here for Liverpool English. Further examples of words containing the phoneme /ɔ:/ in broad Liverpool English are shown in (10) below (in both (10a) and (10b)). In RP, and Liverpool English that is modified towards RP, /uə/ is used in the lower set of words (10b), and /ɔ:/ is only used in those in (10a).

	<00r>	<our></our>	<ure></ure>	<0r>	<au></au>	<ar></ar>
(10a)	d <u>oor</u>	c <u>our</u> t		t <u>or</u> n	h <u>au</u> l	dw <u>ar</u> f
	fl <u>oor</u>	conc <u>our</u> se		ab <u>or</u> t	s <u>au</u> ce	tow <u>ar</u> d
		p <u>our</u>		th <u>or</u> n	appl <u>au</u> d	w <u>ar</u>
				st <u>or</u> m		
(10b)	noor	tour	SUKO			
(100)	p <u>oor</u>	t <u>our</u>	s <u>ure</u>			
	m <u>oor</u>	b <u>our</u> geois	c <u>ure</u>			
	b <u>oor</u>	cont <u>our</u>	man <u>ure</u>			

(10) Liverpool English /5:/ (NLS /au/, /ure/) and RP /5:/ (NLS /au/) vs /uə/ (NLS /ure/)

2.6. Liverpool English /a/ (NLS /a/) and /a:/ (NLS /ar/)

There is no difference in the number of phonemes here between Liverpool English and RP, with both accents having a short vowel and a long vowel (vowel length is indicated by using a special kind of colon, /:/, in IPA transcriptions). There are slight differences in the way that the phonemes are realised, and this explains why there is a difference between the IPA symbols used here, namely /a/ and /a:/, and those used in DfES (2004) for RP, namely /æ/ and /ɑ:/, but this should not present any problems in teaching or learning the phoneme-grapheme correspondences in phonics schemes.

However, the distribution of the two phonemes differs in the two accents, in that some words which have the short vowel in Liverpool English, have the long vowel in RP.

This will become clear if we consider the grapheme-phoneme correspondences for Liverpool English /a/a given in (11).

<:	<au></au>	
c <u>a</u> t	b <u>a</u> th	l <u>au</u> gh
cl <u>a</u> p	gr <u>a</u> ss	dr <u>au</u> ghts
m <u>a</u> d	<u>a</u> sk	<u>au</u> nt
h <u>a</u> m	c <u>a</u> stle	
m <u>a</u> n	<u>a</u> fter	
m <u>a</u> ths	br <u>a</u> nch	
<u>ga</u> s	d <u>a</u> nce	
th <u>a</u> nk	<u>a</u> nswer	
l <u>a</u> mp	ex <u>a</u> mple	

(11) Graphemes used to represent Liverpool English /a/ (NLS /a/)

The words in the second and third columns have the long vowel in RP, that is /ɑ:/ (NLS /ar/) – these are many (although not all) of the words where the vowel is followed by either (i) an / θ , s, f/ or (ii) an /m/ or /n/ plus another consonant. There are, of course, speakers of RP in Liverpool, but very few people in Liverpool have the long vowels in these words.

The Liverpool English long vowel, that is /a:/ (NLS /ar/), is very commonly represented by the grapheme <ar>, but several other graphemes also correspond with the vowel, as shown in (12).

<ar></ar>	<al></al>	<a>	<ear></ear>	<er></er>
c <u>ar</u>	p <u>al</u> m	<u>fa</u> ther	h <u>ear</u> t	cl <u>er</u> k
st <u>ar</u> t	c <u>al</u> m	r <u>a</u> ther		s <u>er</u> geant
<u>gar</u> den	h <u>al</u> f	tom <u>a</u> to		
sh <u>ar</u> p		ban <u>a</u> na		
<u>far</u> m				
p <u>ar</u> ty				

(12)

Some of the words which have the /aɪ/ (NLS /ie/) phoneme for many speakers (and certainly have /aɪ/ in RP) can, for certain Liverpool English speakers, also be pronounced with /aː/. This includes words such as *time* and *five*.

3. Consonant phonemes and graphemes in Liverpool English

The basic consonant system of Liverpool English is given in (13), below. This sets out the consonant phonemes that exist in the accent, transcribed first in the IPA system, and then in the NLS system, and then gives some example words in which the phoneme occurs, where the grapheme that represents it in the word is underlined.

consonant phoneme (IPA)	NLS phoneme symbol	example words	consonant phoneme (IPA)	IPA	example words	
/b/	(/b/)	<u>b</u> aby	/r/	(/r/)	<u>r</u> abbit, <u>wr</u> ong	
/d/	(/d/)	<u>d</u> og	/s/	(/s/)	<u>s</u> un, <u>c</u> ity, <u>sc</u> ience	
/f/	(/f/)	<u>f</u> ield, <u>ph</u> oto	/t/	(/t/)	<u>t</u> ap	
/g/	(/g/)	game	/v/	(/v/)	<u>v</u> an	
/h/	(/h/)	<u>h</u> at	/w/	(/w/)	<u>w</u> as, <u>wh</u> ich	
/dʒ/	(/j/)	ju <u>dge</u> , giant, bar <u>ge</u>	/j/	(/y/)	yes	
/k/	(/k/)	<u>cook, q</u> ui <u>ck</u> , <u>Ch</u> ris	/ Z /	(/z/)	<u>z</u> ebra, plea <u>s</u> e, i <u>s</u>	
/1/	(/l/)	<u>l</u> amb	/0/	(/th/)	<u>th</u> in	
/m/	(/m/)	<u>m</u> onkey, co <u>mb</u>	/ð/	(/th/)	<u>th</u> en	
/n/	(/n/)	<u>n</u> ut, <u>kn</u> ife, <u>gn</u> at	/t∫/	(/ch/)	<u>ch</u> ip, wa <u>tch</u>	
/ŋ/	(/ng/)	si <u>n</u> k	/ʃ/	(/sh/)	<u>sh</u> ip, mi <u>ss</u> ion, <u>ch</u> ej	
/p/	(/p/)	<u>p</u> a <u>p</u> er	/3/	(/zh/)	trea <u>s</u> ure	

Again, for those familiar with the NLS, this can best be compared with the chart from DfES (2004), reproduced here in the appendix, which sets out the NLS phonemes for RP only.

In the rest of this section, we discuss certain complications that may not be clear from the table in (13). We have again picked out some of what seem to us to be the most important points, and have left aside certain others that would also bear discussion in a fuller treatment of the issues. There is less to say here than there was in section 2, as Liverpool English and RP are more alike in terms of their consonant systems than they are in their vowel systems, but there are some important differences, several of which do not affect the number of phonemes, but rather the way in which they are pronounced by speakers.

3.1. Liverpool English /w/ (NLS /w/)

Given that the number of consonant phonemes in Liverpool English is essentially the same as it is in RP, the same phoneme, /w/, is found in words such as <u>was</u>, <u>witch</u>, <u>which</u>, <u>where</u>, in both accents. This means that there is no /A/ phoneme in Liverpool English. The earlier version of the NLS phonics scheme (DfEE 1999) listed this phoneme for RP (using the symbol /wh/), and some accents, such as many Scottish accents, certainly have such a phoneme, in words such as <u>which</u> and <u>where</u>. The later NLS scheme (DfES 2004) does not include /A/ (NLS 1999 /wh/), however, indicating that modern RP is assumed to be like Liverpool English in this regard.

3.2. Liverpool English /h/ (NLS /h/)

Some speakers of Liverpool English may not, in fact, have an /h/ (NLS /h/) phoneme, so that words such as <u>hat</u>, <u>happy</u>, <u>hear</u>, <u>hurriedly</u>, would have no /h/ at the start.

However, this feature (sometimes known as 'h dropping') is not as common in Liverpool English as it is in many other English accents.

3.3. Liverpool English /ŋ/ (NLS /ng/)

The letter sequence <ng> may represent two sounds in Liverpool English, so the word *ring* might be transcribed /ring/ (NLS /ringg/). In RP, <ng> very frequently represents only one phoneme, so *ring* would be transcribed /rin/ (NLS /ring/). This difference applies to many words, and means that appropriate transcriptions for Liverpool English might be as in (14).

(14) sing /sing/
rang /rang/
rang /rang/
song /song/
singer /singe/
singing /singing/(or/singən/)
humming /huming/(or/humən/)

As shown in the last two words in (14), the suffix -ing is very often pronounced /n/ in Liverpool English

3.4. Liverpool English /p, t, k, b, d, g/ (NLS /p, t, k, b, d, g/)

One of the most noticeable characteristics of Liverpool English is the way that speakers often pronounce at least some of the phonemes in the group /p, t, k, b, d, g/ (NLS /p, t, k, b, d, g/). This is not a difference in terms of the number or distribution of these phonemes, so it should not present a real difficulty in learning to spell them, but it may cause some confusion, especially for teachers who are not from the area if they are not aware of the situation, so we discuss it briefly here. We do not discuss all the details, but we hope that the following will give a flavour of the phenomenon.

The phonemes /p, t, k, b, d, g/ are referred to as 'stops' or 'plosives' in the terminology of phonetics and phonology, whereas phonemes such as /f, s, v, z/ are called 'fricatives'. The difference between the two sets of sounds should be relatively obvious when they are pronounced thanks to the difference in the way that we articulate the two sets of sounds – both sets of sounds are quite noisy, but fricatives can be prolonged for as long as a speaker likes, whereas plosives are over in an instant.

The special characteristic of Liverpool English in this regard is that all of these stops can, under certain circumstances, be pronounced as if they are fricatives. This is especially noticeable for many Liverpool English speakers with /t/ and /k/, and often also with /d/ as well. These phonemes are often pronounced using sounds that are almost unique in the English speaking world to Liverpool English (a few other accents, such as those from Middlesbrough and parts of Ireland have a similar situation, but not quite to the same extent as many speakers of Liverpool English). The general process in question here is sometimes called 'lenition', and it is found in many of the world's languages. Liverpool English is special among all the accents of English in that it has lenition more than any other. The fricatives that Liverpool English speakers use to pronounce the plosive phonemes can be represented using IPA symbols, as can every sound in any human language, and some sample IPA transcriptions are given in (15).

(15)	righ <u>t</u>	га1 <u>0</u>
	ki <u>t</u>	kī <u>θ</u>
	coul <u>d</u>	ku <u>ð</u>
	la <u>d</u>	la <u>ð</u>
	ba <u>ck</u>	bax
	do <u>ck</u>	døx

The symbols in (15) that correspond with the graphemes $\langle t \rangle$ and $\langle d \rangle$ are not the same as the phonemes discussed in the next section, and the sounds they represent are not the same, so *kit* sounds different to *kith* in Liverpool English, just as both sound different to *kiss*.

3.5. Liverpool English /θ, ð/ (NLS /th/)

The two phonemes $\theta/$ and $\delta/$ are both represented by the same symbol in the NLS system for RP (/th/), as they are in spelling (). This should not be taken to imply that RP has the same phoneme in thin, bath and then, bathe. RP has different sounds in these two sets of words (even though the NLS transcribes them using the same symbol). The IPA transcription for these phonemes are θ for *thin* and *bath* (and other words with this sound), and $|\delta|$ for *then* and *bathe* (and other words with this sound). Many speakers of Liverpool English have the same phonemes in these words as RP does, but for some speakers, at least some of the time, the phoneme θ can be replaced by /t/ and δ / can be replaced by /d/, or at least by something very similar. This means that the words thin and tin can sound the same for some speakers of Liverpool English, and both could be transcribed as /tin/, and, similarly, the words then and den can sound the same for some speakers of Liverpool English, and both could be transcribed as /dɛn/. When speakers of Liverpool English do not use /t/ and /d/ for the words, they use θ and δ . As mentioned in section 3.4., these are not exactly the same as the 'lenition' sounds in kit and lad. All this means that for some Liverpool English speakers, at least some of the time, the grapheme can correspond to four phonemes: /t, d, θ , δ /.

4. Conclusion

We hope that this piece is helpful for those who teach spelling to children who speak Liverpool English, and we strongly encourage teachers not to be bound purely by the NLS materials, or by other phonics schemes which are only truly applicable to children who speak RP. It may even help to overtly discuss some of the differences that exist between Liverpool English and RP with pupils – people are rightly interested in their own accent and in the differences that exist between accents.

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Appendix

This is the table of phoneme-grapheme correspondences for RP on page 15 of the DfES (2004) publication *Playing with Sounds: a Supplement to Progression in Phonics*. It is included here to allow comparison with the situation for Liverpool English, as described above.

baby dog field, photo game hat judge, giant, barge cook, quick, mix, Chris lamb monkey, comb nut, knife, gnat ring, sink paper emes and their more usual	/r/ /s/ /t/ /w/ /w/ /y/ /z/ /th/ /th/ /th/ /ch/ /sh/ zh/	r s t v w j z δ θ t f f 3	rabbit, wrong sun, mouse, city, science tap van was yes zebra, please, is then thin chip, watch ship, mission, chef treasure
field, photo game hat judge, giant, barge cook, quick, mix, Chris lamb monkey, comb nut, knife, gnat ring, sink paper emes and their more usua	/t/ /w/ /y/ /z/ /th/ /th/ /ch/ /sh/ zh/	t v w j z δ θ t f J 3	tap van was yes zebra, please, is then thin chip, watch ship, mission, chef
game hat judge, giant, barge cook, quick, mix, Chris lamb monkey, comb nut, knife, gnat ring, sink paper emes and their more usua	/v/ /w/ /y/ /z/ /th/ /th/ /ch/ /sh/ zh/	v w j z δ θ t f J 3	van was yes zebra, please, is then thin chip, watch ship, mission, chef
hat judge, giant, barge cook, quick, mix, Chris lamb monkey, comb nut, knife, gnat ring, sink paper ermes and their more usua national representative words	/w/ /y/ /z/ /th/ /th/ /ch/ /sh/ zh/	w j z δ θ t f J 3	was yes zebra, please, is then thin chip, watch ship, mission, chef
judge, giant, barge cook, quick, mix, Chris lamb monkey, comb nut, knife, gnat ring, sink paper emes and their more usua	/y/ /z/ /th/ /th/ /ch/ /sh/ zh/	j z δ θ t J 3	yes zebra, please, is then thin chip, watch ship, mission, chef
cook, quick, mix, Chris lamb monkey, comb nut, knife, gnat ring, sink paper emes and their more usua	/z/ /th/ /th/ /ch/ /sh/ zh/	z ŏ θ t] J 3	zebra, please, is then thin chip, watch ship, mission, chef
lamb monkey, comb nut, knife, gnat ring, sink paper emes and their more usual national representative words	/th/ /th/ /ch/ /sh/ zh/	ŏ Ө t Г З	then thin chip, watch ship, mission, chef
monkey, comb nut, knife, gnat ring, sink paper emes and their more usua national representative words	/th/ /ch/ /sh/ zh/	θ t] J 3	thin chip, watch ship, mission, chef
nut, knife, gnat ring, sink paper emes and their more usua national representative words	/ch/ /sh/ zh/	t]] 3	chip, watch ship, mission, chef
ring, sink paper emes and their more usua national representative words	/sh/ zh/	1 3	ship, mission, chef
paper emes and their more usual national representative words	zh/ al graphe	3	
emes and their more usua	al graphe		treasure
national representative words		emes	
abet		Phonetic Alphabet	
cat	/00/	U	look, would, put
peg, bread	/ar/	a:	cart, fast (regional)
pig, wanted	/ur/	3:	burn, first, term, heard, work
log, want	/au/	o:	torn, door, warn, haul, law, cal
			wooden, circus, sister
	and the second second		down, shout
	1. C.		coin, boy
			stairs, bear, hare
	1000 C 2000		fear, beer, here
moon, blue, grew, tune	/ure/	UƏ	pure, tourist
ween slashes / /			
	plug, love pain, day, gate, station sweet, heat, thief, these tried, light, my, shine, mind road, blow, bone, cold moon, blue, grew, tune en slashes //	plug, love /er/ pain, day, gate, station /ow/ sweet, heat, thief, these /oi/ tried, light, my, shine, mind /air/ road, blow, bone, cold /ear/ moon, blue, grew, tune /ure/ en slashes //	plug, love /er/ ə pain, day, gate, station /ow/ au sweet, heat, thief, these /oi/ oi tried, light, my, shine, mind /air/ eə road, blow, bone, cold /ear/ iə moon, blue, grew, tune /ure/ uə en slashes //

The notes at the bottom of the table indicate how this table has been modified from the equivalent tables on pages 5 and 6 of the DfEE (1999) publication *The National Literacy Strategy: Progression in Phonics*.

Liverpool English phonemes and some of their more usual graphemes

This is a one-page summary of the tables of phoneme-grapheme correspondences for Liverpool English, repeated from the main body of the document 'Phonemes, graphemes and phonics for Liverpool English' by Patrick Honeybone and Kevin Watson (2006), which discusses of many of the complications that are hidden in these simple tables. This summary page is both an appendix to that document and a separately accessible file. The tables given here in (i) and (ii) are intended to be at least partly comparable to those from page 15 of the DfES (2004) publication *Playing with Sounds: a Supplement to Progression in Phonics*, and the columns headed 'NLS phoneme symbol' give the symbols used in that publication, which is part of the background materials for the National Literacy Strategy for England (but which only, strictly speaking, works for RP and very similar accents). The relevant graphemes in the tables are underlined.

consonant phoneme (IPA)	NLS phoneme symbol	example words	consonant phoneme (IPA)	IPA	example words	
/b/	(/b/)	<u>b</u> a <u>b</u> y	/r/	(/r/)	<u>r</u> abbit, <u>wr</u> ong	
/d/	(/d/)	<u>d</u> og	/s/	(/s/)	<u>s</u> un, <u>c</u> ity, <u>sc</u> ience	
/f/	(/f/)	<u>f</u> ield, <u>ph</u> oto	/t/	(/t/)	<u>t</u> ap	
/g/	(/g/)	<u>g</u> ame	/v/	(/v/)	<u>v</u> an	
/h/	(/h/)	<u>h</u> at	/w/	(/w/)	<u>w</u> as, <u>wh</u> ich	
/dʒ/	(/j/)	ju <u>dge</u> , giant, bar <u>ge</u>	/j/	(/y/)	<u>y</u> es	
/k/	(/k/)	<u>cook</u> , qui <u>ck</u> , <u>Ch</u> ris	/ Z /	(/z/)	<u>z</u> ebra, plea <u>s</u> e, i <u>s</u>	
/1/	(/1/)	<u>l</u> amb	/0/	(/th/)	<u>th</u> in	
/m/	(/m/)	<u>m</u> onkey, co <u>mb</u>	/ð/	(/th/)	<u>th</u> en	
/n/	(/n/)	<u>n</u> ut, <u>kn</u> ife, <u>gn</u> at	/t∫/	(/ch/)	<u>ch</u> ip, wa <u>tch</u>	
/ŋ/	(/ng/)	si <u>n</u> k	/ʃ/	(/sh/)	<u>sh</u> ip, mi <u>ss</u> ion, <u>ch</u> ef	
/p/	(/p/)	<u>p</u> a <u>p</u> er	/3/	(/zh/)	trea <u>s</u> ure	

·····			
(i) Liverpool English consonant	t phonomos and som	o of their more	ucual graphomog
THE LIVERDOOL ENGINED CONSUMATION	L DHOHEIHES AND SOIL		usuai gradheines

(ii) Liverpool English vowel phonemes and some of their more usual graphemes

vowel phoneme (IPA)	NLS phoneme symbol	example word	vowel phoneme (IPA)	NLS phoneme symbol	example word	vowel phoneme (IPA)	NLS phoneme symbol	example word
/I/	(/i/)	p <u>i</u> g	/i:/	(/ee/)	sw <u>ee</u> t	/eɪ/	(/ae/)	p <u>ai</u> n
/ɛ/	(/e/)	р <u>е</u> д	/ɛː/	(/ur/),(/air/)	b <u>ur</u> n	/aɪ/	(/ie/)	tr <u>ie</u> d
/a/	(/a/)	c <u>a</u> t	/aː/	(/ar/)	c <u>ar</u> t	/31/	(/oi/)	c <u>oi</u> n
/ŋ/	(/o/)	l <u>o</u> g	/วเ/	(/au/),(/ure/)	t <u>or</u> n	/ɛʊ/	(/oe/)	r <u>oa</u> d
/ʊ/	(/oo/),(/u/)	p <u>u</u> t	/u:/	(/ue/)	m <u>oo</u> n	/au/	(/ow/)	d <u>ow</u> n
/ə/	(/er/)	b <u>a</u> nana				/iɛ/	(/ear/)	f <u>ear</u>