

CHANGING ENGLISH? THE IMPACT OF TECHNOLOGY AND POLICY ON A SCHOOL SUBJECT IN THE 21ST CENTURY

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ABSTRACT

This paper offers a historically comparative picture of the latest of waves of policy and technological changes that have occurred between 2000-2006 and discusses their impact on the practices of secondary school English in the UK. It draws on data from two previous research projects¹ to explore significant moments of micro-interaction in a classroom that can be framed and integrated in the broader macro social and policy contexts of the production of school English. Specifically the paper offers a comparison of two distinct “moments” – 2000, when the first data set was collected, and 2006 with a focus on the impact of technological and policy change for English.

KEYWORDS: School English, historical comparison, multimodality, technology, poetry, pedagogy.

INTRODUCTION

The secondary school classroom in England has been subject to unprecedented levels of intervention and change over the last two decades – from the prescription of curriculum to the technologies that are now routinely used, to the design of pedagogy, to changes in teaching personnel. These processes have impacted on the communicational landscape of the classroom, on the relationship between teachers and pupils and on the transmission “reception” and production of curriculum knowledge. Arguably, their effects have been most strongly felt where, historically, curricula had been less specified, and pedagogy less formalised. One such area is English. English has been strongly affected by complex and uncoordinated processes of change, involving shifts in policy, professional identity, technology and cultural form. This paper comments on these changes and attempts to say what have been their combined and detailed effects – on teaching, curriculum knowledge and more generally on the character of the landscape of the classroom.

The paper draws on two specific case studies, both of which are understood against the backdrop of the two data sets they are taken from (this consists of nine case studies from a dataset collected in 2000 for the Production of School English Project (Kress *et al.*, 2005) and seven from a dataset collected in 2005-6 for *The Evaluation of Schools Whiteboard Expansion Project* (Moss *et al.*, 2007). Each case study consists of fieldwork observation and video recording of an English lesson or

¹ Production of School English Project (ESRC Ref: R000238463) undertaken by Kress, Jewitt, and colleagues at the Institute of Education, Jones at Keele University, and Bourne from Southampton University and reported in Kress *et al.* (2005); and The Evaluation of Schools Whiteboard Expansion (SWE) Project (2004-6, DfES, Moss *et al.*, 2007).

sequence of lessons, the collection of salient policy documents, teacher interviews, and student focus groups.

A multimodal approach that looks beyond language to all forms of communication (Jewitt, 2009; Kress, 2010) is adopted as it allows detailed investigation of the interaction between changes in technology, policy, curriculum, and student resources, while the element of historical comparison is an innovation that will develop further the methodological framework of multimodal research.

BACKGROUND AND FOCUS

While alert to continuities in the “grammar of schooling” (Tyack & Cuban, 1997) and to the enduring patterns of socialisation and occupational preparation that these reflect, our concern in this paper is with change, and with a process of transformation brought about in part by technological change and product availability, and in part by a wider project of educational modernisation that has affected educational purposes, roles, regulation and affordances. We can identify its effects at three significant levels.

Firstly, the *digital landscape of the classroom* has changed fundamentally over the past decade. Of all secondary school subjects, English, because of its inclusion of language, literature, film and other media, is most sensitive to changes in the communicational landscape. It has long occupied a central position in educational debates about cultural change. An important aspect of these debates has concerned the effects of policy and technological change on teaching and learning. A decade ago the use of technology in the English classroom meant a trip to the computer suite usually to word process completed written work (Harrison *et al.*, 2001). Now the majority of English lessons in secondary schools are taught on Internet-enabled interactive whiteboards (IWBs) supported by scanners, visualisers, and other digital peripherals (Moss *et al.*, 2007). This change marks a shift from “one defining apparatus to another”, from print to digital technologies, which is accompanied by an intensification of digital practice and changing communicational forms (Green, 2004, p. 298). Understanding the effect of this shift (both positive and negative) is fundamental for the future design of teaching, learning and curriculum: for instance, how teachers and students use and interpret image, writing and moving image in the classroom or how technological change mediates the curriculum (Andrews, 2004; Smith, 2008).

Secondly, shifts in classroom practice need to be located in a *broader cultural and technological frame*. Students’ communicational resources have changed significantly over the past decade, bringing music, image and video into their everyday repertoire. Nearly all students in the UK now have home access to the Internet (UK households with children with broadband connectivity has risen from 28% in 2000 to 83% in 2008) and routinely carry a mobile phone with digital camera, video, MP3 player; as Harris and Rampton (2008) point out, in their study of urban classrooms, new media are pervasive. These changes have expanded the multimodal resources available to students, multiplied the reading paths to be navigated, and introduced practices of re-mixing and redesign of communicational forms (Leander & Frank, 2006). They raise questions about the form and functions of writing and image

in the classroom (Bezemer & Kress, 2008; Crook & Bennett, 2007; Merchant, 2007) and highlight the complexity of digital writing and reading practices (Maun & Myhill, 2005; Burke & Rowsell, 2008; Smith, 2008; Unsworth, 2008) and speaking/listening (Goodwyn, 2004; Andrews, 2004).

Thirdly, cultural and technological change is inter-related with a government-driven project of *educational modernisation*. The pace and impact of policies intended to regulate teaching and learning have accelerated dramatically over the past decade. Constant change has become a cultural norm (Jones, 2003). A raft of policy interventions has led to a more strictly stipulated content, and correspondingly more prescribed and standardised styles of teaching and assessment in English and other curriculum subjects. In consequence, both the temporal and the spatial arrangements of the classroom have been transformed: the use of time is subject to more explicit management, for instance, and space has been reorganised so as to facilitate the teacher's panoptical gaze (Jewitt & Jones 2005). As a part of the modernising project, "workforce reform" has introduced new personnel to the classroom. The number of teaching support staff in England has nearly doubled over the past decade (from 175,000 in 2000 to 302,000 in 2009) and the government is keen to further widen teaching assistants' responsibilities (Shepherd, 2009; DCSF, 2003). This is not the only kind of change. Moss's work (2004) on the nationally directed standardisation of classroom practice and the analyses of managed performativity (Mahony & Hextall, 2000) and Gewirtz (2008) have demonstrated processes of deprofessionalisation and reprofessionalisation (Seddon, 1997) at work among teachers.

Changes in the communicational landscape of the classroom that are described in this paper are intricately tied to broader technological, social and cultural change, and to educational modernisation. That said, technological/social change and policy intervention are often in tension in the UK English classroom and often appear to be moving in contradictory directions. Technological and social change has, for instance, expanded the multimodal resources available to students on the one hand, while on the other policy has worked to regulate and regiment those resources like any other resource. Without wishing to rehearse the dichotomy that technological change is "good" and policy change is "bad", this paper suggests the need to open up and interrogate the character of these contradictions and tensions, in particular, the movement towards opening up of digital tools and practices and the closing down of regulatory forces of educational modernisation within the UK classroom.

How subject English is constituted through the interaction of teachers and students, with attention to how these are mediated by the use of the technologies is the primary focus of this article,. Drawing on two case studies on teaching and learning in the English classroom from 2000 and 2006, it will explore the communicational landscape of the classroom with attention to how changes over that time period have reshaped the curriculum of school English; the organisation of time and space; the modal resources used in school English and the roles and functions of writing and image.

A MULTIMODAL PERSPECTIVE

The paper takes a social semiotic, multimodal approach to the data analysis (Kress & van Leeuwen, 2001; Jewitt, 2009). This approach foregrounds systematic attention to meaning and the ways in which teachers and students use modes to represent the world and engage in social interaction, and shape “knowledge”. It has affinities with a general ethnographic stance towards classroom interaction (for example, Erickson, 1986; Green & Bloome, 1997). It extends the social interpretation of language and meaning to the full range of communicational forms (modes) used in the English classroom for making meaning and attends to the agency in making meaning of all participants.

A multimodal approach is underpinned by four theoretical assumptions. First, language is part of a set of multimodal resources in which all modes have the potential to contribute equally to meaning. Second, a multimodal approach assumes that all modes have, like language, been shaped through their social, cultural, and historical usage. In short, each mode in a multimodal ensemble is understood as realizing communicative work in distinct ways, thus making the choice of mode a central aspect of interaction and meaning. Third, people orchestrate meaning through their selection and configuration of modes, foregrounding the significance of the interaction between modes in the production of meaning. Fourth, all communicational acts are constituted by and through the social. In other words, communication is shaped by the norms and rules operating at the moment of sign-making, and influenced by the motivations and interests of people in a specific social context.

The application of multimodal methods and theory to the context of the English classroom enables the array of factors that shape school English to be examined (for example, the organization of space as classroom layout, visual displays, gesture, gaze, and so on) in ways that are appropriate to new classroom complexities. They enable an understanding of school English in which significant moments of micro-interaction in a classroom can be framed and integrated in the broader macro, social and policy contexts of the production of school English.

The comparative historical approach draws from the work of Bezemer and Kress (2008); it is used to construct the inter-relationship of policy, cultural and technological change with classroom interaction across the two distinct “moments” in time. Established curriculum and pedagogic concepts and practices that featured strongly in the School English Project (Kress *et al.*, 2005) provide the starting point for the analysis of the case studies. These were used to sample episodes for analysis and to move iteratively between the two case studies to identify points of change. A historical approach involves the comparison of different articulations in time (for example, one from 2000, and one from 2006, or 2009) of the “same” concept (for example, “metaphor”, “simile”). The comparison of teaching episodes of different times is focused on how different technologies, modes and media and different social and political contexts shape the pedagogic representation of the concept. Often such an analysis shows that what looked like “the same” concept and made the subject “look” the same over time was actually differently construed.

The analysis of the video data will use the “telescopic approach” to data analysis developed by Kress and colleagues (2005) and drawing on the work of Lesh and

Leher (2000). Through an iterative viewing and increasingly detailed interpretation, the analysis is refined to hone in on relevant critical moments of interaction associated with change. The sampled episodes are viewed repeatedly, with vision only, sound only, fast forward, in slow motion – all of which provide different ways of seeing the data (McDermott & Raley, 2008). The analysis of each episode proceeds in three different “steps”: 1. Mapping the modes key to the interaction in an episode and how they feature; 2. Analysis of the modes as an ensemble and the relationships between them; 3. The analysis of the semiotic work realized by these modal arrangements. (These three steps are discussed fully in Bezemer and Jewitt, 2009.) This three-step analysis enables the characterisation of teaching in the landscape of the contemporary classroom to identify changes and continuities in the practices of teachers and students in the English classroom.

ILLUSTRATIVE EXAMPLE: A MULTIMODAL HISTORICAL COMPARISON OF TWO CASE STUDIES

From a macro-sociological perspective, the socio-technological changes of the past decade may appear not to have changed either the dominant power relations between teacher and students and the school as an institution. From a (micro) multimodal perspective, however, the re-mediation of the interactions of teachers and students – via changes in educational policies and the use of digital technologies in the classroom – is central to how school English is constituted. Thus, to understand what contemporary English is, it is imperative to understand changes in the interaction of teachers and students in the English classroom, its forms and functions, and the resources used to mediate its constitution. This illustrative example compares video data from the earlier study collected in 2000 with video data from a study of the use of IWBs collected in 2006 (Moss *et al.*, 2007). Both videos show a secondary-school English lesson on poetry taught by the same teacher in the same classroom. In the earlier lesson the teacher is using an Overhead Projector and in the more recent lesson she is using an Interactive Whiteboard. “Poetry” and “persuasive language” remain the curriculum focal points in both lessons; however there are significant changes in the landscape of school English with respect to the pedagogic organisation of the classroom and roles, the display of texts, and the process of textual analysis, each of which is described and discussed below. The findings described in this illustrative example resonate across the larger data sets of the projects and contemporary English classroom.

Pedagogic organisation of the classroom and roles

The spatial-arrangement of the classroom in both lessons (and historical moments) is similar in many respects. The desks are arranged to seat students in small groups of 3-5 in a cafeteria style. Students sit around these so that they can also face the board at the front middle of the classroom. Overall, the balance of whole-class work to small-group work remains similar. Historical comparison of the environment of the classroom, however, indicates some significant changes in the work of teacher and students in the classroom that may mark a pedagogic rhetoric of “democratisation”. Specifically changes are realized in the teacher’s use of the classroom space, the re-organisation of the “collective gaze” of the class, and student movement in the classroom.

In both lessons the teacher's position and movement is strongly shaped by the technology of the IWB or the overhead projector (OHP), but differently so. In 2000 the teacher stood by the OHP some distance from the front of the class to annotate the poem for the majority of the introduction of the poem. In 2005 the teacher stood at the centre-front of the class at the IWB to introduce the poem; she manipulated and annotated the prepared PowerPoint directly on the board. These differences effect the organisation and orientation of teacher gaze and student gaze in the classroom as well as the authority of the poem on display. In the 2000 lesson, students had to choose from multiple focal points: the learning objectives written on one side the board, the poem displayed on the other side of the board, the teacher at the OHP annotating the poem, the poem – as duplicated part-text – from their students' anthologies. The teacher was annotating in real time and thus was engaged directly with the poem for the majority of her time, looking up to call on the students for comments. That is, the gaze of teacher and student was polycentric and often cut across one another. Further, the technology of display created a separation between the practice of annotation and the annotated text – what the teacher was doing could not be viewed by the students; what was displayed was a disembodied outcome on the board. To establish a collective gaze on the board, the teacher had to move to sit alongside the students. In 2005 the teacher and student shared a centralised gaze (except during the short period when the teacher interacted remotely with the IWB). This shift from individual to collective gaze orientates the teacher and students to the work of analysis in different ways: in 2000, the teacher demonstrated “annotation” and the divide between teacher and student was marked in gaze orientations and the distinct spaces of interaction these created; in 2005, gaze suggested a shared teacher-and-student position to the poem. This rhetorical reshaping is aligned with the modernisation agenda, notions of explicitness, equity, participation and ownership, all of which serve to emphasise the role of the learner.

In the lesson in 2000, the students remained in their seats throughout; in contrast, students in the 2005 lesson came up to the front to annotate texts displayed on the IWB. Student-made texts were scanned and displayed on the IWB. The pedagogic space of the front of the class (the IWB) was thus positioned, in 2005, as a space of action and display for students and teacher. In both lessons, students responded to the teacher's questions and prompts, but the number and extent of student responses was higher in 2005. Of course, it would have been possible for the teacher to use the OHP to support student participation, but not within the same timeframe and with the ease afforded by her use of an IWB. Furthermore, the social discourses that technologies are embedded in can make the options for interaction more obvious in a new social environment: the OHP is embedded in rhetorical discourses of authoritative styles of presentation, while the IWB is embedded in rhetorical governmental and commercial discourses of interaction and participation.

The lesson in 2000 involved the teacher in more real-time “board work” than the lesson in 2005. Much of the text displayed on the IWB was teacher-made and produced in advance. Text-making and preparatory work have been a key element of teaching and created layers of activity across times and contexts regardless of the technology used. However, digital technologies have changed some of these practices and with it many of the texts used in the contemporary UK English classroom. The contemporary conditions described in this paper foreground the work of text design,

and place previously “in-class work” outside of the classroom – into personal preparation periods or beyond the school into the home. Thus, some of the work of teaching that in the past would have been visible in the classroom becomes “hidden, behind-the-scenes work”. This paper suggests that this has the potential to strengthen and naturalise the authority of teacher-made texts, to quicken the pace of lessons to the rhythm and flow of teacher and curriculum time and to further restrict space for student interjection. These different temporal and spatial forms have consequences for the work of the teacher and the students in the classroom. For example, with no extended time where the teacher writes on the board or the need to erase the contents of the board, moments where a teacher has their back to the class are eradicated. One consequence of this is the removal of spaces for students to behave badly, but also the reduction of regular “informal-open” classroom spaces for students to think, reflect, and chat that can now be filled with curriculum. The changes thus results in both gains and losses for teaching and learning. In UK English classroom teachers are now expected to actively “design” all the spaces in the classroom.

The display of texts

The rhetoric of “democratisation” is suggested by the contrast between the display and function of student texts in the classrooms. In the 2000 lesson, canonical English texts and teacher-made texts were displayed on the front and sidewalls of the classroom, with some student texts displayed on the back wall. Student-made texts were incorporated into the active pedagogic space of the classroom in 2005. The teacher scanned student responses to the poem, including student poems, and displayed these immediately on the IWB. The student texts displayed on the IWB became an object of discussion that both the teacher and fellow students manipulated and annotated. A shared malleable text was created that opens up new pedagogic possibilities that can effect the configuration of authorship and authority in the classroom. The teacher’s annotation and marking of the student texts on the IWB transforms what is usually a semi-private activity into a public one. This makes both the marking criteria and process explicit. This can be understood as a multimodal version of the verbal IRF (Initiation, Response, and Feedback) process. It is a process that foregrounds the importance of assessment and examination in the everyday practice of the classroom.

The sense of what can and needs to be displayed has changed in the time between the two lessons, as have the technologies of display. In 2000, writing and speech were in the foreground; by 2005, however, image, colour and layout have, alongside writing, become central to the pedagogic resources of the classroom. The changing semiotic landscape of the classroom has an effect on the curriculum and the pedagogic function of texts – what texts are presented, how texts are presented, and what can be done with them. In the 2000 lesson, the use of the OHP supported the display of the written poem with line numbers, in a photocopy from a book. In 2005, the poem was integrated with images downloaded from the Internet in a teacher-made PowerPoint across several slides. More generally, comparison of the two data-sets, and observations of school English in 2009, suggest that changes in the relationship between image, speech and writing have extended and embedded in the English classroom. It is now common for English teachers (although there may be

generational differences in this) to show a clip of digital video (often via U-tube)² or to display an image – often downloaded from the Internet – to offer a route into a concept. Teachers frequently use PowerPoint presentations to present their argument, they annotate texts visually or they connect to a webpage. The use of image is also prevalent in students’ work in English, with the use of clipart, digital photographs – taken by students or downloaded from the Internet – designed as PowerPoint presentations and project work, both in class and out of school for homework. This reshapes the work of the teacher and the student. The contemporary teacher is involved in the pedagogic design of digital multimodal texts that were rarely seen in 2000. The student analysis of written ‘imagery’ in poems is now often re-mediated by actual images. What is to be learned and how it is to be learned is being reshaped by teacher and student uses of the multimodal potentials of digital technologies. This prompts the question: what are the social and educational implications – the gains and losses?

Textual analysis

A significant difference for textual analysis is that the starting point for the introduction and the analysis of the poems is different. This difference appears to be underpinned by changes in the use and function of writing, speech and image in the classroom. The starting point for textual analysis in the 2000 lesson was provided by a whole-class discussion of the poem title and students’ use of the dictionary to look up title words. The starting point for textual analysis in the 2005 lesson was provided by a whole-class discussion of the image accompanying the poem displayed on the IWB and a whole-class brainstorming activity. The role of the dictionary in textual analysis has changed from its central position in the 2000. In 2005, the meaning of words are anchored and defined through images downloaded from the Internet that the student are asked to match to words in the poem such as “Congregation”. Comparison suggests a general move towards capturing and displaying the work and opinions of students: from ephemeral talk to the concretised display of talk. In 2000 there is a firmer boundary between the work of reading the poem and analysing the poem than is the case in 2005. The poem is read aloud twice before analysis for meaning begins in 2000, whereas in 2005 analysis for meaning begins with the illustration before the poem is introduced. The potentials for meaning made possible by changes in the socio-technological environment of the classroom raise new decisions for teachers and students with implications for curriculum and pedagogy that the proposed project will investigate.

These differences mark a significant trend for English and literacy as much as for thinking about both. There is the use of image rather than of writing as a starting point for discussion of the poem; the Oxford English Dictionary (OED) has disappeared from the students’ tables; in 2005, images rather than the OED are used to define words considered difficult for the students. The poem is now displayed in “chunks” spread across the IWB screens – as words, lines, or title. In 2000 the poem was displayed on the OHP as a whole; that was then slowly ‘carved up’ in a process of interrogation. With the IWB, the teacher works with the whole class and students interact with the meaning of the poem right from the start of the lesson – in matching

² An observation made by John Yandell, Institute of Education, during his observation of beginner teachers’ work in London Schools.

image and word, for example – and in answering questions. In 2000, the teacher drew a strong boundary between *reading* the poem and *analyzing* it. In the contemporary classroom, the 2000 boundary between speech, writing and image has been reconfigured, as has the boundary between reading and analysis. Boundaries of many kinds in the English classroom have it can be argued have either disappeared, reconfigured or relocated.

Summary: the remediation of the interactions of teachers and students

Over the past decade, the interactions of teachers and students have, as this comparative analysis from a (micro) multimodal perspective demonstrates, changed in some significant ways (and remained the same in equally significant ways). The remediation of the teacher and student interaction via technological, social and policy change is, this paper argues, central to how school English is constituted. Table 1 summarises the comparative elements from 2000 and 2006 to provide a snapshot comparison across complex changes, and the stabilities that persist in the interaction of teachers and students, its forms and functions, and the resources used to mediate its constitution.

	2000 episode	2006 episode
Pedagogic organization		
Student position and movement	Seated in small groups No movement from seats	Seated in small groups Walking to front of class to interact with IWB
Teacher position and movement	Front of classroom, near OHP Or walking around the class to visit small groups	Front of classroom, near IWB Or side of classroom near computer
Teacher and student gaze	Polycentric	Monocentric
Teacher board work	Real-time	Prepared before lesson Real time annotation
Lesson pace		Quicker than in 2000
The display of texts		
Texts displayed on board	Canonical poem	Canonical poem Illustration accompanying poem Student poem Marking criteria and process explicitly demonstrated
Modes in use	Writing and speech	Image, colour and layout, and writing
Student texts	Displayed on back wall Private individual space of exercise book	Displayed in the active pedagogic space on IWB <ul style="list-style-type: none"> • annotated • manipulated Private individual space of exercise book
Rhetoric of display	Rhetoric of authority	Rhetoric of “democratisation”
Textual analysis		
Starting points for the introduction and analysis of the poem	Whole class discussion of the poem title	Whole class discussion of the image accompanying the poem displayed on the IWB Whole class brainstorming activity
Meaning of words	Central role of dictionary: students’ use of the dictionary to look up title words	Anchored and defined through images displayed on the IWB
Relationship/boundary between	Poem is read aloud twice before	Analysis for meaning begins

the reading and analysis of the poem	analysis for meaning begins Strong boundary between reading and analysis	with the illustration <i>before</i> the written poem is introduced or read Weak boundary between reading and analysis
The poem as a text	Poem displayed on the OHP as a whole Poem slowly “carved up” in the process of interrogation Distributed into 3 parts across the groups	Poem cut up into “Chunks” spread across the IWB screens – as words, lines, or title.
Modes analysed	Writing	Image and writing

Table 1. Comparative summary of elements of teacher and student interaction in 2000 and 2006

CONCLUDING COMMENTS

Against the backdrop we have provided, literacy needs to be newly located within multimodal ensembles where the relationships of writing and image, screen and page, are unsettled in new relations (Kress, 2003; Jewitt, 2008). The textual cycle and the forms appearing in contemporary English remake the classic relationship between image and writing. The visual is no longer – if indeed it ever was – an illustrative adjunct to word; images are used fully in representation; they are integrated in multimodal ensembles. This move speaks of the need to make curriculum knowledge “relevant” by connecting with students’ out-of-school experience; the desire to increase student “engagement” through “interactivity”; as well as the pressures of examination and the promise of ‘speed’ (Jewitt, et al, 2007). Increasingly, images now provides the starting point for an English lesson (Moss *et al.*, 2007; Jewitt, 2008).

The relationship between the visual and English is not new, though the specific ways in which writing, image and other modes now feature in the classroom is changing in ways significant for literacy and English. IWBs and access to the Internet shape how information and knowledge are created, recreated, mobilized and shared in the classroom.

Increasingly image provides the first step in accessing topics and issues including the effects and uses of language. The profound effects on English have barely begun to be recognized: the world *shown* is not the same as the world *told* (Kress, 2003).

All this has far-reaching effects for English and literacy, for the texts that come into the classroom, how they are mobilized, how they circulate and are inserted into social interactions. This changes the place, the functions and uses of image, writing and speech. The boundaries between canonical texts and the texts of the everyday, of the aesthetically and historically valued, of the mundane are changed. In important ways these changes mark the social and political boundaries of English – determined by teachers, schools, Local Education Authorities, by policy and by diverse social interests – boundaries hitherto tightly guarded and regulated by a highly prescriptive policy context. Drawing texts from the Internet (for example, from image banks or

You tube) connects English with the experiences and technologies of out-of-school in ways that question the boundaries of canonical knowledge and what counts as socially valued. This changes the semiotic landscape of the English classroom, even though these changes vary across an uneven social terrain.

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