

**BEING AN HISTORIAN: AN
INVESTIGATION INTO THE
IMPACT OF USING ONLINE
SOURCE BANKS TO
REPLICATE THE RESEARCH
EXPERIENCE OF HISTORIANS
IN THE A-LEVEL
CLASSROOM.**

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**A RESEARCH & DEVELOPMENT
PROJECT SUBMITTED FOR THE MSc IN
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Abstract

This study investigated ways to improve students' understanding of and engagement with contemporary sources in the history classroom. The study followed an action research model working with two teachers to support A-level history students in completing three different historical enquiries using online source archives, analysing the impact and adapting the structure of the activity each time. The lessons were delivered to a class of year 12 historians consisting of 12 students.

Baseline information suggested that students had a weak grasp of the nature of sources and the work of historians, despite success in their GCSE exams. The literature review revealed that there are a number of key heuristics adopted by expert historians when working with contemporary sources. It also showed that these cognitive processes were not beyond the ability of secondary age students.

Students' responses to open-questions on questionnaires and written tasks completed at each iteration did not show them to have developed confident use of the heuristics of experts but did show that their understanding of the way that historians work had shifted considerably and they had moved from Alexander's (2003) stage of acclimation to competence, progress towards expertise.

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Introduction

“It is important to note that the question asks about the usefulness of a source for a specific enquiry, in this case, an enquiry into the link between poverty and crime, rather than the work of the police... Sometimes the judgement of utility was based on the simple assumption that any information ... would be useful ... When considering provenance, there were a number of generic comments about a source being biased.” (Pearson Edexcel Examiner’s Report, 2019: 8)

“Provenance featured in many answers but little was developed beyond the simple claim of bias ... Whilst the question permits students to discuss the limitations of the source, those limitations have to be relevant to the question.” (AQA Examiner’s Report, 2019: 7)

Studying history in a comprehensive secondary school in the 1990s, there was one part of the learning that I grew to dread: “sourcework”. Somewhat akin to the tedium of being exhorted to “show your working” in mathematics, source exercises in history seemed like the technical, dry workings-out behind the scenes of an inspirational subject. The most exciting and engaging teachers relied little on the dense Schools History Project textbooks – *Discovering History* – with their spreads of purple boxes and “Source A-G” questions. Instead they enlivened our minds with tales of the past, passionate exposition and thought-provoking questions that drew out reflection, debate and discussion. As an early careers teacher, it was this model to which I aspired, rather than filling the hour with tedious technicalities.

I was not alone in this; LeCocq (2000) referred to “death by sources” and this resonated with our experience in schools and was something we were keen to avoid for our students. Of course, the National Curriculum, GCSE and A-level specifications all required sourcework from students and it was not something to be avoided completely. Within our department we generally adopted a two-pronged approach to source skills. The first was to try and ‘disguise’ source work as something more exciting with novelty activities built around the sources themselves: competitions, races to select appropriate sources and out-of-seat discussions or post-it note blitzes. The second was to try and make it as easy and accessible for students so that they could do as well as possible in their exams and coursework with as much time “saved” for other things: acronyms, teaching-to-the-markscheme and drilling students to produce formulaic answers were all favoured tactics. We introduced a number of source-based activities from the journal *Teaching History*, but with little deep thought about how they fit into a wider picture of student progression in evidential understanding.

Nor did this appear to be unique to our context: year after year examiners’ reports repeated comments such as the ones above and the fact that many of my students achieved well in their exams allowed me to believe that I was somehow teaching students about sources relatively successfully, if formulaically, despite a lack of enthusiasm.

Two things challenged my complacency in this area. One was beginning an MSc in Learning and Teaching which reintroduced me to some thought-provoking reading on students’ understanding of evidence and started to change my approach in the classroom, with gratifying results. The second was beginning research for a book that required me to delve into archives in a way I had not done since my last dissertation (for an MA in History), over a decade earlier. I became re-inspired by the technical work of historians in their research and writing. I took some of the nineteenth-century documents I was working on and showed them to my students. Far from being bored with the

handwritten documents they were fascinated, and a sizeable group of year 9 students stayed through lunch reading the minute books and posing questions about the events within.

It was increasingly clear that my approach to evidential work had been myopic, and that my desire to save my students from the flaws of my own educational experience had led me to over-correct and short-change them on an important aspect of their historical education. I began to use sources much more enthusiastically and frequently in my lessons at all key stages, sharing a renewed enthusiasm for hearing the voices of the past in our classroom. However, the more I deployed contemporary evidence, the clearer it became that my students' understanding was lacking. Misconceptions extensively recorded in the literature on evidential thinking abounded. They had an excessive focus on bias without seeing it as something of use to the historian (Rouet, 2000; Lang, 1993). They read for information and formed interpretations rapidly, often failing to appreciate the nuances of a source (Wineburg, 1998, 2001). And they tended to fixate on key ideas from the exam markschemes such as reliability, without any sophisticated understanding of what this meant to the historian (Lang, 1993; LeCocq, 2000; Smith, 2001).

Probing these issues, I began to explore with my A-level class their understanding of how historians conducted research; what sources they might use and what they might learn from them; and how they might go about substantiating some of their hypotheses about key topics we were studying. These were all students who had done well at GCSE and performed extremely well in the source paper. However I was shocked to realise that they had only the sketchiest concept of how historians work with sources to generate evidence. On the other hand, they had done very well in their exams, so how much change was actually needed? I needed to answer some fundamental questions: what is the appropriate role of contemporary source material in secondary history education? What do professional historians (experts) "do" with sources and how do they learn these skills? And, of course, what would best practice in the classroom look like: what level of understanding should I aspire for my students to achieve and how is that best developed?

Literature Review

What is the appropriate role of contemporary source material in secondary history education?

Considering the universal presence of some sort of source analysis in every specification I have ever taught or learned, and the National Curriculum assessment criteria for Key Stage 3, it is noteworthy how relatively recent is the perception that source analysis is fundamental to a secondary-level history education. Certainly, Keatinge (1910) argued passionately for the inclusion of more work with sources in schools, and provided extensive examples of how they could be used to enhance students' understanding. However it seems quite likely that he was largely ignored (McAleavy, 1998). Furthermore, Keatinge's main argument was that the inclusion of source analysis would secure history's place in the curriculum by demonstrating its value as a subject beyond mere learning about the past by helping students to develop inferential skills with application beyond the discipline of history. He argued that "it must not be imagined that the aim is to convert schoolboys into historians" (Keatinge, 1910: 38). A further effort to promote more active learning in history by F. C. Happold had slightly more impact and led to the Oxford Local Examinations Board introducing a GCE syllabus which included source analysis tasks, but the examination was stopped in 1958 because there were few candidates (Sylvester, 1994: 12).

It was not until the 1970s that there was a large scale movement to bring sources into the classroom when, under pressure from HM Staff Inspector for History, the Schools Council agreed to run a history project, beginning in 1972 (Sylvester, 1994: 15). The project challenged notions that history was best experienced as a "received subject" and argued that "history in school was to be as similar as possible to history as ... the best professionals practice it. Pupils were 'to do' history, not merely receive it" (Sylvester, 1994: 16). This was not without controversy. Most famously G R Elton criticized the approach and argued that the practice of history was the preserve of universities rather than schools (Sylvester, 1994). The Schools Council therefore funded an extensive and thorough research study into the impact of following the Schools Council teaching programme on students'

progress in and understanding of history. Shemilt's (1980) evaluation compared the historical skills and insights of a large sample of students following the SHP syllabus in a range of schools with those of their peers in schools that were not. The findings were highly positive, and Shemilt found that the project was both ensuring students engaged with contemporary sources and that they were developing more advanced levels of historical thinking, such as recognising the need to develop and test hypotheses with evidence (Shemilt, 1980: 47).

Nonetheless, there were some difficulties with the integration of contemporary source materials into the mainstream history classroom, a number of which were to prove enduring challenges for history teachers. Shemilt's (1980) report did raise some concerns, one such being that the increased level of challenge (about which he enthused) presented difficulties for students with lower literacy levels. The Schools Council History Project's response was to give "pupils some quotations that were so short as to be questionable as sources" (McAleavy, 1998: 13). A number of writers have attributed to this choice both a gross simplification of the nature of source analysis in the minds of students and a "wholly new type of boredom and difficulty for low attainers" (McAleavy, 1998: 13) which many have referred to as "death by sources" (LeCocq, 2000; Counsell, 2000). Sources included in classroom resources, including the SCHP's textbooks, were so trimmed, and the language so adapted to support literacy needs that they essentially became 'gobbets'; tiny extracts of source material, largely devoid of context or richness and of limited use to students seeking to understand the discipline (Lang, 1993; McAleavy, 1998; Woolley, 2003; Worth, 2016). Woolley (2003) argued that the source 'gobbet' created fundamental difficulties for students seeking to extract evidence from sources: "It is simply too short. The material has been edited beyond recognition, any challenge has been neatly avoided and a lengthy blurb is necessary to summarise for pupils what they should be discovering for themselves." (Woolley, 2003: 6). Thus, whilst students following the SCHP programme of study were certainly engaging with contemporary source material, it is unclear that the ambition of recreating the process of historical research in the classroom was fulfilled.

Despite these limitations, the case for using contemporary sources in the classroom was strong and well-evidenced and partly as a result of the demonstrable and well-evidenced positive impact of this programme, the SCHP approach and research led to a national rethinking of the purpose and nature of history. By 1990 nearly a third of pupils taking the GCSE examination were following the SCHP's syllabus (Sylvester, 1994). Even if they did not follow the SCHP's course, the Department of Education and Science embraced the idea of pupils learning the discipline of history, as well as the subject matter and from 1988 pupils sitting the GCSE examination were required to "show the skills necessary to study a wide variety of historical evidence which should include both primary and secondary written sources." A-level examinations also reached agreement on the need for the inclusion of questions which tested pupils' skills at analysing source material. Finally, the inclusion of source analysis in the 1991 National Curriculum ensured that sourcework was a feature of all children's education in England and made the ethos of the Schools Council History Project the "established orthodoxy" for history teaching, less than two decades after its inception (Worth, 2016: 82). Within a twenty-year period, the status of contemporary sources had gone from being an optional and rarely used addition to the secondary history classroom to being seen as fundamental to the teaching of history.

However, the exam boards and statutory guidance had a more limited definition of the role of sources in the classroom than the ambitions of the SCHP. Both the 1988 and 1991 National Curriculum attainment targets had a strong focus on the "problematic nature of sources" (McAleavy, 1998: 15), rather than the uses to which they were actually put by historians. This was not quite in line with Dickinson, Gard and Lee's argument that it would be valuable for students to understand the role of evidence in leading to particular inferences and to building interpretations (1978: 15-16), but the emphasis of both seems to have been in breaking down the complex nature of historical investigation into something manageable in the average classroom.

Teachers and exam boards have both shared concerns about formulaic teaching and exam responses. In one edition of *Teaching History* dedicated to historical evidence, Byrom raised concerns that students were exhibiting a “lazy cynicism” about the value of sources and explained an approach that involved careful and detailed work with accounts of the Peasants’ Revolt to construct a narrative, discern contradictions and similarities between the sources and “to be constructive” (1998:32-33) with sources rather than dismissive. In the same edition, O’Neill expressed concerns that cartoons in exams were seen as a “sop to the illiterate and easy meat for the able” (1998: 20) and questioned whether students really had a good historical understanding of these sources and Mulholland (1998) sought to help students better express the evidence that supported their historical analysis by offering a formula for constructing paragraphs with evidence at the very heart, using the metaphor of an “evidence sandwich”. Notably, all three writers cited assessment criteria and students with low literacy levels as particular concerns.

A common response to such challenges was highly structured classroom activities or tools to break down a complicated skill. For example, O’Neill (1998) offered a formula for cartoon analysis in the form of an acronym (PICTURE). However there was a risk that a memorised formula for cartoon analysis would not extend beyond knowing-how as students applied the formula with limited insight. Counsell (2000) clearly demonstrated a source activity could easily be used well or badly. Although she offered only a single case study, her analysis of a source task involving a range of accounts of the Blitz had yielded high-level thinking where students started to think about the collection of sources as a whole and were able to “go beyond reliability and utility into typicality” (Counsell, 2000: 37) was insightful. She had witnessed many young teachers deliver the activity without carefully planning for the students’ progression and the sequence which should follow and found that pupils were “being encouraged to reach judgements on the basis of nothing. This could even *damage* their concept of ‘evidence’ rather than improving it” (Counsell, 2000: 41).

A similar, heavily-imitated source “activity” is the “Supermarket ‘Evidential’ Sweep” introduced to the history teaching community by Foster and Gadd (2013). Foster and Gadd introduced a fast-paced activity wherein students got out of their seats, to hurriedly select sources. They then reviewed these in groups before being offered the chance to substitute items from their collection with alternatives, with a focus on supporting specific claims. As with many such pieces, one driving concern was to develop students’ ability to meet assessment criteria (Foster and Gadd, 2013: 28), specifically their ability to carefully select evidence to support claims. There is no reason to doubt their conclusion that the activity supported their students’ learning and helped to break them away from an “over-reliance on writing frames... [which] risks *hindering* students’ historical thinking” (Foster and Gadd, 2013: 24). However, mirroring Counsell’s experience, I have seen many trainee or early careers teachers attempt to deliver this activity over the years and have rarely witnessed anything resembling this success. Generally speaking, students focus far more heavily on the timings and pace of the game and so do not select evidence with care. When teachers create a space in which students take a little more time over their sources, they nonetheless operate in a mental zone where they are dismissing sources that require a little more depth of thought and analysis in favour of those that offer easy and accessible information. There is also the danger that they develop the misconception that historians set out seeking to prove a certain point and sift through the evidence until they find that which they need to justify their pre-conceived claim.

Revisions to both the national curriculum and the criteria of GCSE and GCE examinations have, of course, seen changes to the emphasis on different analytical skills students might be asked to demonstrate in assessment. McAleavy (1998) was optimistic about the shift to a greater focus on the “production of a reasoned and substantiated conclusion” (15) using source material. More recent changes to the GCSE specification have removed a number of problematic questions from most GCSE exam papers including the bizarre “Are you surprised by this source?” that was a feature of OCR examination papers until 2017. This is not the place for a comprehensive review of each phase of changes but it is important to note that there has been no settled, universal and stable

definition of what, exactly, students should be doing with sources to demonstrate expert or even competent understanding of the historical process and the role of evidence within this. Again, practical issues are partly responsible for this: as McAleavy noted, “within the constraints of an examination there is a very limited number of methods one can use to test the ability to use sources” (1998, 13).

Over an extended period and through many different incarnations, teachers have tended to critique the impact of poorly structured assessments on students’ understanding of sources (Lang, 1993; McAleavy, 1998; Card, 2004; Chapman and Goldsmith, 2015; Worth, 2016). However, it is far from clear that this is a comprehensive explanation of the issues. In fact, despite its lofty ambitions, the SCHP has been accused by critics of doing something similar. McAleavy critiqued both the SCHP’s emphasis on seeking the limitations of sources and the impression students received about the work of historians when completing exercises in the accompanying textbook: “Do historians in reality spend most of their time agonising over the bias, reliability and the provisional nature of their findings?” (McAleavy, 1998: 13). In his seminal critique of the way that contemporary sources were addressed in the classroom, Lang (1993) gave examples of a range of questions from textbooks, including the SCHP’s own, that demonstrated an ahistorical focus on source bias with strongly implicit suggestions of this limiting the utility of sources. Although these examples were not part of a comprehensive survey, the nature of such questions was ubiquitous enough that his article resonated strongly with the history teaching community and is widely cited over 25 years after publication. Lang’s powerful critique of the over-emphasis on bias clearly demonstrates a link between classroom practice and assessment criteria.

This extended to the teaching of history at all Key Stages. As well as the exam criteria for A-levels and GCSE, from 1991-2014 the National Curriculum for history, through a number of incarnations, tied teachers to a system of levels which saw working with sources as a particular skill to be assessed. As we have seen above, this type of assessment and progression model, has the power to greatly

shape classroom teaching, but it did not accurately reflect the way that students' understanding of the historical method develops. Lee and Shemilt (2003) argued that the national curriculum instead acted as a barrier to successful replication of sophisticated source analysis in the classroom, analogising the progression model to a 'cage' rather than the scaffold it should have been. In a large-scale piece of research, Project CHATA explored the evidential ideas of 320 students and identified key impediments to progress such as confusing "sources" with "information". Lee and Shemilt (2004) constructed and proposed a progression model based on this extensive research, arguing that the highest level of understanding recognises an active role for the historian without assuming there is one perfect answer to capture the past. Students at this level recognise that "accounts must answer questions and fit criteria" (Lee and Shemilt, 2004: 30) but cannot really achieve this if their core understanding of evidence is flawed and if they carry misconceptions about its nature, which may be promoted by teaching to the NCAT model. Over a series of articles, they aimed to map common misconceptions about the nature of history and ideas of evidence held by history and to show how these might develop as their insight deepened. For example, students who saw evidence as offering "direct access" to the past or a source of information have yet to understand the nature of evidence as testimony. Even with this, a "scissors and paste" approach to evidence focused on finding the "true bits" was some way from a deeper understanding of evidence in its historical context (Lee and Shemilt, 2003: 21). This work provided extensive insights which resonated with many history teachers and helped them to develop a much clearer picture of how their students' understanding might advance. But Lee and Shemilt were very clear that they were not proposing a progression "ladder" which pupils could ascend without wavering or with an abstract grasp of evidence that could then be applied to any topic at will.

One strength of the history teaching community in England is the extensive professional dialogue supported by the *Teaching History* journal that has allowed teachers to develop their pedagogical understanding beyond their initial training. For example, divorcing source evaluation from the use to which the sources were being put as evidence and a focus on the limitations of sources were

common practice in the early period of the SChP, but these were “quickly corrected” thanks to effective professional dialogue (Ashby, 2017). Engaged practitioners now recognise that sources should be used as part of a specific and focused enquiry (Counsell, 2000; Smith, 2001; Kitson and Husbands, 2010). This understanding has fed back into the latest assessment requirements as the AQA Examiner’s Report quoted in the introduction illustrates. It is also widely accepted that students need to understand the positive use to which sources are put; that historians do not discount sources because of bias, or use them in spite of bias but make positive use of it to bring history to life (Lang, 1993; LeCocq, 2000). Again this has led to changes in assessment criteria as evidenced by the Pearson Edexcel Examiner’s Report. After an extended period of debate and review, the National Curriculum has moved away from early weaknesses and abandoned the level descriptors which tried to rank progression steps in students’ use of sources. The current programme of study for history instead asks that all pupils “understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims” (Department for Education, 2013: 1).

Experience, research and practitioner reflections over the last four decades have greatly improved our understanding of the role of contemporary source material in secondary education. Early models that emphasised the limitations, often driven by assessment criteria, have been replaced with more nuanced progression maps. These emphasise the need for students to understand the role of sources in generating evidence for historians to use in well-defined enquiries. At all Key Stages assessment criteria have been adapted in light of this research and debate, opening the potential to use contemporary sources in the history classroom in less restrictive ways that reflect the research process of actual historians. Indeed, Watts has suggested that, in fact “there is ... a great deal more self-conscious reflection on, and development of the skills of the historian in secondary education than in higher education.” (2016: 153).

On the other hand, it is not clear that there is a single consensus about what students should be doing with sources, how they should be doing it and what success looks like. As Worth (2016)

pointed out, there are at least two well-known progression models used in mainstream education. Pragmatic considerations including cost, reproduction of source material and students' literacy difficulties have placed limits on the nature of assessment and classroom activities. Teaching to the assessment in pressured educational environments has put further limits. As a result, in three decades of source use being seen as integral to the delivery of history education, a clear and universally accepted understanding of how they should be used in the classroom has not emerged and thus variation exists between different exam boards, schools and individual teachers. Thus the vision of the SChP that students can conduct historical research in their classrooms in something approaching the manner of expert historians has yet to be realised. My research interest therefore became to return to that original vision, with the deployment of modern technology to access a wide range of original source material, in a depth that textbooks simply cannot provide. Would allowing students to work with online source archives improve their understanding of how historians work? Was this now a tool ready to be effectively deployed in order to help students act as expert-historians in the classroom setting?

However, I continued to have questions about exactly what this would look like. How would I know whether my students were really developing, without the strict and structured progression models that teachers had previously been expected to use? Wineburg (2001) found that of two trainee teachers, the physics major was actually better at thinking contextually when asked to complete a think-aloud analysis of sources than the history major. This study looked at only 2 trainee teachers and in the context of the American rather than the British education system, and so can only be given limited weight. Further support was provided by another of Wineburg's research studies into teachers' understanding of sources which found similar limitations, however even this only used a very small sample of 12 teachers but agreed that there was "no clear-cut relationship between undergraduate major and the ability to create a historical context" (Wineburg, 2001: 109). Thus the question of exactly what expert historians actually do with sources and how they analyse them in

order to deepen their understanding of the past has become urgent and one with which every history teacher needs to engage.

How do academic historians (experts) work with contemporary sources?

One reason there may be some division amongst educators as to the appropriate way to engage with contemporary sources is that there has been some disagreement between historians themselves. At the same time that pupils were increasingly being exposed to the skills and approaches of the historian in the classroom the discipline itself was undergoing significant challenge from within as post-modernists such as Jenkins questioned the nature of historical accounts and the objectivity of evidential work (Jenkins, 1991). Whilst this led to greater insight into the nature of the historian as a creator of history, which has certainly shaped the thinking of classroom practitioners (see, for example, Card, 2004) it may also have increased the gap between academic practice and secondary teachers' understanding. Works about the historical method such as E H Carr's (1961) *What is History?* dropped off the core reading lists of many universities in the wake of this movement, leaving a potential gap of understanding between history as practised in universities and as understood by teachers in secondary schools. In reviewing the articles of three practitioners in 2016, Watts noted that "there may be a degree of mis-fit between the forms of academic history presented in schools and those practised in universities" (Watts, 2016: 153). This is not helped by the nature of historical scholarship, where the mechanics of archival work and source analysis are rarely presented in any technical detail for the engaged reader. As Riesman and Wineburg noted, "historical thinking is by its very nature invisible" (2010: 204).

Wineburg's (1998) research uncovered several features of the nature of expert historical thinkers. Although he only used two historians, having taught them the think-aloud method he was able to glean rich data about their cognitive processes when given a series of seven sources by or about Abraham Lincoln. Both were academically successful (expert) historians but only one was an expert on Lincoln. Wineburg found that the Lincoln expert (whom he referred to as H1) read through the

materials relatively quickly and used a theoretical framework, within which he reacted and against which he tested them (Wineburg, 1998: 321). In contrast, the historian with no background in studying Lincoln (H2) did not construct such a framework, but asked far more questions about the sources (to himself) and specified ignorance about certain aspects of the sources or language relatively frequently (21 times, compared to H1's 7) (1998: 334). Both historians focused on specific words and vocabulary they recognised the need to unpick in the context in which it was being used and both read the documents for extended periods of time, returning frequently to sources they had previously read for review. With only two subjects, Wineburg's findings should not instantly be applied to all historians but they suggest a pattern of expert thinking that involves careful, detailed reading, the construction and testing of hypotheses and theories, careful questioning of the source material and a precise sensitivity to the context in which sources were created.

The level and mastery of H1's expertise, the product of years of intensive study, can clearly not be inculcated into secondary school students, even at A-level. However, an awareness of these approaches may well support teachers in modelling source analysis in the classroom. Furthermore, of particular interest is Wineburg's findings about how his less-expert historian (H2) coped with his lack of knowledge about Lincoln. Although unable to construct the same theoretical framework as H1, Wineburg found that he nonetheless engaged with the sources in a way that demonstrated his expertise as an historian. What particularly stood out was the number of questions he asked and the way he was able to learn from the sources by modifying his original interpretation and cross-referencing between the sources: "H2 encountered the past in this task and learned from it" (Wineburg, 1998: 338). This is an especially powerful insight for history teachers as that is often a key aim of using contemporary source material in the classroom. One key difference between H2 and secondary students may well be what he sought to learn from the sources. Lee and Ashby reported on the findings of Project CHATA that one key impediment to students' progress was their tendency to confuse 'sources' with 'information', "rendering such students helpless when faced with contradictory sources" (2000: 84). However, H2's learning moved far beyond gleaning information

from these unfamiliar sources to gaining insight into the motivations of key actors, and the social context in which the sources were created.

One key difference, therefore lay in how H2 approached the sources to learn so much from them. Wineburg found that he used three key heuristics to support him in this: sourcing (careful consideration of the provenance of the source), corroboration (using sources in conjunction with each other as a body of evidence to test hypotheses and deepen his knowledge) and contextualisation (carefully and sensitively considering the wider context in which the source was created in order to better understand each source). These heuristics may be of great use to history teachers seeking to improve students' understanding of how historians work with sources to generate evidence, but Wineburg was not able to flip the experiment so that H1 worked outside of his own research area in order to see whether they were particular features of H2's cognition or more widely representative of expert thinking in history.

Other research does suggest, however, that Wineburg's heuristics are more widely used than by this single historian. In another small-scale study, Wineburg (2001) compared the approach of academic historians to high-achieving high school students to explore difference between expert and novice thinkers. Once again, the sample included historians who were not experts in the topic of the sources (the American Revolution) such that some of the high-school students outperformed some of the experts on a prior knowledge test administered before the source analysis. By using the think-aloud method, Wineburg was able to compare the approaches of experts versus novices with those who had prior knowledge and those who didn't. He found that the similarities lay with expertise in history rather than knowledge of the American Revolution. The experts used the sourcing heuristic nearly all of the time (98%) using provenance to formulate hypotheses about what the source would say and then exploring the details within the source (Wineburg, 2001: 76). In contrast, the students only used the sourcing heuristic 31% of the time. This suggests both that the experts approached the sources differently, but also that this approach was not beyond the reach of high-school students,

they simply didn't apply it consistently. Wineburg concluded that the experts fundamentally approached the sources differently seeking subtext "not the literal text or even the inferred text" (2001: 65). The students (novices) tended to seek information from the sources, looking for the "right answer". Importantly, the novices did not score worse than the experts on basic comprehension questions and drew accurate inferences about the sources' meaning (2001: 76). Thus Wineburg concluded that experts were reading and thinking about historical sources in different ways to students, seeing that "texts are not lifeless strings of fact, but the keys to unlocking the character of human beings ... authors, as well as texts, are decoded" (2001: 74). The heuristics of sourcing, corroboration and contextualisation helped them to achieve this. Although the small sample size once again demands caution about assuming these findings to be universal, the richness of Wineburg's findings offer exciting insights into the thinking of expert historians that have clear application in the classroom.

Other researchers have reached similar conclusions using methodologies that have allowed slightly larger samples, if somewhat less rich data. Rouet et al (1997) reported on a novice-expert study comparing 8 students with at least 4 years of degree-level history (experts) and 11 with at least 4 years of degree-level study including psychology but no history since high school (novices). They used the topic of the Panama Canal which none of their subjects had studied specifically, thus putting all the historians into the position of Wineburg's H2. They found that the experts were able to learn from participants' accounts, although these accounts were clearly biased, whilst the novices tended to dismiss them. Rouet et al reported that whilst both novices and experts' essays made similar numbers of citations, the way in which documents were cited varied between the two groups. They found that novices tended to use the source materials for information whereas the experts were able to draw inferences and subtexts due to their more sophisticated use of the source material. They concluded that "what comes with expertise ... is the ability to take into account a variety of criteria when evaluating documents: source parameters, the document content, and also the task or purpose for which the document is being studied" (Rouet et al, 2000: 115). Rouet's methods did not

yield insight into the exact cognitive processes that led to these differences as they analysed the completed task of the novices and experts but there is strong consistency with Wineburg's findings. For example, their experts drew subtext from the content of the documents, which is very likely to have involved deploying the sourcing and contextualisation heuristics.

The sourcing heuristic was further in evidence in a comparison of elementary school teachers and PhD students who looked at a single document (Harrison's declaration of 'Discovery Day' in 1892). Wineburg (2007) found that the experts focused on the document as originating in 1892 and therefore sought to learn about 1892 whilst the novices focused on Columbus and what the source told them about 1492. None of the doctoral students specialised in the late nineteenth century so Wineburg again concluded that this was not about substantive knowledge but about a fundamentally different approach to source material from non-historians.

The research therefore indicates that experts approach sources in certain ways: with a specific enquiry in mind, they read sources carefully and several times, seeking subtext rather than just information. In order to learn from the sources, they treat them as a body of evidence whenever they are using multiple sources, thus corroborating or challenging hypotheses they have formed (the corroboration heuristic). Historians are highly engaged with the provenance of the source, often reading it first and using this to anticipate to a certain degree the content of the document they are about to read. They focus not on the limitations of the source, but on the potential to reach new insights with new perspectives offered (the sourcing heuristic). And they are intensely sensitive to the context in which the source was constructed, down to the level of individual words and phrases and the meaning they may have held for the author or creator of the source (the contextualisation heuristic). With these tools they are able to glean rich insights from sources that escape the notice of many novices.

Wineburg (2001) famously called historical thinking an "unnatural act" and both his research and that of Rouet suggests that given a range of historical source material, even intelligent and educated

people do not naturally approach the sources as would an historian. Thus in the history classroom the impact of conducting historical enquiries using a source archive can potentially be measured against the deployment of these heuristics and the cognitive approaches of expert historians. What is not clear from research into expert thinking is when and how, exactly, the experts acquired these approaches and heuristics. Wineburg noted that, for example, “we do not know how, exactly, people learn to think contextually” (2001; 110). For the history teacher these are fundamental questions: how do we teach students to develop the approaches of expert rather than novice historians when working with contemporary sources? How successfully would a model based on recreating historical enquiries using online source archives fit into our current understanding of best practice?

How can secondary students best be taught to work with sources in the history classroom?

Despite early doubts, research has increasingly suggested that novices can deploy the processes and heuristics of expert historians. Pickles (2015) conducted a large-scale study of 164 students by combining the think-aloud method (18 dyads) with gathering 126 written responses from students from 19 schools, half from Key Stage 3 (KS3) and half from Key Stage 5 (KS5). She found that the vast majority of students in both key stages exhibited the traits of novice thinkers including the dismissal of sources about which they had reliability concerns. For example, only four students drew inferences by comparing sources (the corroboration heuristic) (Pickles 2015: 361). Although almost half the students in each group had recently been taught about Cromwell and showed in pre-testing that they had the substantive knowledge so to do, the vast majority did not refer to their knowledge in drawing conclusions (the contextualisation heuristic). However, in analysing case studies of some of the written work the students produced Key Stage 5 students were starting to show signs of expert thinking including the construction and testing of sophisticated hypotheses (Pickles, 2010: 49-50). Pickles concluded that it was not the case that students were incapable of deploying the heuristics of expert thinkers but that “there has been insufficient attention given [in English

education] to the nature of reasoning that needs to be employed to reach valid historical conclusions” (2015: 366).

International research has paid more attention to the nature of historical reasoning and has also found promising indicators. It has been noted that Wineburg (2001) found novices used the sourcing heuristic 31% of the time, suggesting it was not beyond their capability, but that they were not entirely clear on how and when to deploy it. In recent years an increasingly wide range of both research and professional literature exploring how to apply these insights into expert thinking in the classroom has developed. Huijgen et al (2017b) combined methods with 170 written tasks and 36 think-alouds, allowing them to investigate a large sample but also explore patterns of students’ reasoning. They rated students’ competence at Historical Perspective Taking which they defined as “contextualising the actions of people and groups in the past” (2017b; 111); the contextualisation heuristic. On a scale of 0-4 they found that 48% of students achieved scores of 3.0 or above which they rated as “good ability to perform HPT” and only 4% scores of below 2.5 which they rated as “inadequate ability” (Huijgen et al, 2017b; 131). The scale itself was based on extensive research into expert thinking, but they did choose to use fictionalised “source” material to avoid issues with comprehension, so it would be useful to repeat this research with students working with real historical sources. However, the indications are that novices are capable of deploying the heuristics of experts to at least some degree. Van Boxtel and Van Drie (2012) also concluded that students were not incapable of deploying expert heuristics (contextualisation, in the case of their research) but that they tended to rush to conclusions which reduced the likelihood that they would do so successfully.

However, research into how to go about teaching these skills remains far from comprehensive. Huijgen et al. found that “both novice and experienced history teachers seem to struggle when they are asked to develop engaging learning tasks and teach students historical reasoning competencies.” (2017a: 161). Although based on research with Dutch teachers is certainly resonates with my own

experience in English education (see introduction). Nonetheless there is some promising research into how to develop advanced skills in novice historians. Huijgen and Holthius experimentally tested a model to teach the skill of contextualisation in the classroom based on three stages: raising awareness, constructing an historical context and giving students opportunities to practise. Four teachers worked with 96 students in the experimental condition and three teachers with 73 students in the control condition. They found that, after the intervention, students in the experimental condition “used less present-oriented perspective and more historical contextualisation in their post-test answers” (Huijgen and Holthius, 2018: 36).

Reisman and Wineburg (2010) identified 3 key activities that were essential to teaching students the skill of contextualisation, the most-studied of the key heuristics. These were background knowledge, guiding questions and explicit modelling (by experts) (Reisman and Wineburg, 2010: 203). Having constructed a website that offered these supporting tools they were able to analyse a small sample of students’ submitted written answers in depth to demonstrate that some students (novices) were able to learn how to think contextually. One interesting dimension of the website was that it selected topics about which there were common preconceptions (notably the Montgomery Bus Boycott) and so they were also able to see how some students drafted modern ideas onto the source material. This led to fundamental errors, such as misunderstanding the chronology of events. Nonetheless they concluded that providing a structured environment was better than “hurling students into the raging waters of the Internet” (Reisman and Wineburg, 2010: 206). However, to become expert thinkers, students may need to move beyond such closely-guided work to engage with new source materials on their own terms.

Chapman and Goldsmith (2015) reported on a research summary of a project by the History Virtual Academy (HVA) that allowed students to interact with historians online to build their understanding of historical interpretations. Obviously understanding of interpretations is a skill closely linked with evidential understanding and they found that, students were able to participate in online

interactions and “develop a sophisticated understanding of historical knowledge construction” (Chapman and Goldsmith, 2015: 184). As with Reisman and Wineburg (2010), the practicalities of recruiting experts to model their thinking are limited in day-to-day teaching, but the research does suggest that with careful modelling and dialogue students can develop a greater understanding of the historian’s process, if teachers are able to find a way to provide this in the classroom.

Within English education, the dialogue in the professional literature to which Huijgen et al. (2017a) referred also provides examples of teachers who have had success at developing advanced levels of analysis in their students. LeCocq (2000) challenged students’ misconceptions by focusing on the positive use of bias by historians, helping them to see beyond the novice’s tendency to dismiss sources that are unreliable. Smith (2001) demonstrated that by moving beyond a focus on exam success and carefully constructing source activities that challenged pupils’ misconceptions, he was able to both engage students and elicit advanced historical thinking even from relatively weak students. By encouraging his case-study pupil to ask questions and test hypotheses, Smith demonstrated that they became more aware of the tentative nature of evidence-claims drawn from source material (2001: 13). This is much more in line with the patterns of expert thinkers than the mining of sources for information which characterises novices. Evans et al. constructed an in-depth enquiry about the life of a World War 1 soldier as they were concerned that “in most textbooks or worksheets, a source written in 1066 can look exactly the same as a source written from the trenches of the First World War.” (2003; 9). Students used original source materials loaned from an archive as a body of evidence to construct accounts of the past (corroboration heuristic) and placed them carefully into context in order to better understand the views and experiences of an individual First World War soldier (contextualisation heuristic). Here the richness and value of working with original source material could be seen, but the challenges of accessing such material remained extensive at that point. Evans was introduced to the specific archive he used during his PGCE and maintained links with St. John’s Museum in Warwick so that he could deploy the resources in her classroom. However the practicalities of preparing and delivering this material to students would have limited its

applicability to general classroom practice in 2003. Other teachers have also had success in building expert-level thinking by breaking away from the restrictions of pre-packaged sources in history textbooks. Sellin (2018) demonstrated that pupils in Year 10 could deploy the sourcing heuristic when he constructed an activity in which they predicted the content of sources about the Blitz before being shown the poster itself. He found that the pupils showed a strong “instinct to start second guessing what the source might be” which then helped them critique the source’s usefulness as evidence more effectively (Sellin, 2018: 35).

In each of these cases, history teachers have broken away from source ‘gobbets’ to expose their students to something much closer to that which an historian would use in an archive. In some cases an individual document or image, in others a carefully chosen collection of contemporary sources. They have used these to engage with historical enquiry and build individual skills that research has suggested to be the hallmark of expert historical thinking. However, they tend to focus on a very specific aspect of cognition and to deploy it for a particular enquiry. This may well be a vital step on the journey to expertise, but expert thinkers are able to deploy their analytical skills in a range of circumstances and without such structured guidance. At some point the heuristics need to be integrated, rather than isolated.

Van Boxtel and Van Drie (2012) conducted a much larger scale experiment with 144 students from 9 different classes in 6 different schools which suggests how this might be achieved. As with Reisman and Wineburg, they focused on a specific strand of expert thinking (contextualisation) and worked with 18 dyads to identify key factors that led to successful contextualisation of sources: knowledge of the source and detailed and thorough analysis of the source. They therefore split the students into four groups, a control and three experimental groups: one which received a knowledge intervention, one which received a strategic support intervention and one which received both. Crucially they found that the knowledge intervention group outperformed both the strategic support intervention and the knowledge plus strategic support intervention groups. Although the sample

size and range of schools used in this study was impressive, the range of sources was very limited. Furthermore, an isolated intervention does not demonstrate that skills intervention over an extended period of teaching (e.g. 5-7 years of secondary school) would not be effective. However the findings do indicate that it is not focusing on skills in the abstract that build students' understanding of the nature of historical evidence. It is likely that the most important factor is working closely with sources to generate evidence for specific a specific historical enquiry.

This is supported by a growing body of research into the development of expert thinking in students from outside the specific field of history education. Mason and Spence argued that one problem in education is that it is focused on knowing-about (knowing-that, knowing-how and knowing-why) rather than knowing to: "Knowing-about ... forms the heart of institutionalised education: *students* can learn and be tested on it. But success in examinations gives little indication of whether that knowledge can be used or called upon when required, which is the essence of knowing-to." (1999: 138). They root the issue in the need to assess students' learning within educational settings and posit that "education dwells in knowing-about: what is taught is what can be tested, so expert awareness is transformed into instruction in behaviour." (1999: 141). They argued that what students need to get from an ideal education is knowledge that they can use in new situations. Critiques of history education as focusing too heavily on assessment criteria support the implication that this may be a problem. Students know that they must analyse sources and take account of provenance when drawing evidence from them. At times they demonstrate that they know-how to do this, sometimes using expert heuristics or scaffolds provided by their teachers. Highly structured activities with a focus on specific skills may then give them knowledge of why they need to do these things. But research, professional literature and examiners' reports consistently suggest that they do not know-to use these analytical tools. That is, when confronted with new sources and enquiries they do not know to use the heuristics, to select which analytical approaches will be most valuable and to yield subtext and context from the sources themselves. Based on extensive research into mathematics, Mason and Spence (1999) concluded that students were able to learn the skills of

expert thinkers (mathematicians) when teachers moved away from highly-structured activities, and offered more opportunity to apply knowledge and skills to problems, whilst clearly labelling the thought processes that students were using. However, they did note that labelling has to be withdrawn, as “anything with positive potential also has negative potential ... slogans can become superficial jargon ... mnemonics intended to serve students as labels often block effective subordination as well as triggering recall.” (1999: 155-56).

Implications of the Literature Review

The literature review indicates a number of clear differences between the approach of expert historians to source analysis and that of novices. To the expert, evidence can be gleaned from sources to test hypotheses or event-models (Wineburg, 1998, Worth, 2016) whereas the novices tend to focus on reading sources for information. For the novice, bias is a problem with sources and may lead to them dismissing sources because of concerns about reliability (Lang, 1993), whereas for the expert it can be the root of rich insights gained from the subtext of a source (Wineburg, 2001). Experts achieve the outcome or learning from sources by deploying three key heuristics: the sourcing heuristic, the corroboration heuristic and the contextualisation heuristic (Wineburg, 1998). Of these, the contextualisation heuristic is by far the most studied (Wineburg, 1998, Huijgen et al, 2007a, Rouet et al, 2007). However, we still do not know exactly how novices become experts and learn to integrate these techniques so that they know-to use them, rather than knowing-about them (Rouet et al, 2007), and we do not have reliable models to help teachers improve their practice in teaching these vital skills (Huijgen et al, 2017a). Nonetheless, it is clear that if we can provide our students with learning opportunities that allow them to develop these skills, we will be better equipping them to understand how historians actually use contemporary sources to generate evidence for historical enquiries.

Furthermore, both academic research and professional literature give clear indication that secondary level students can learn the analytical skills of experts in the classroom (Shemilt, 1980; Lang, 1993;

McAleavy, 1998; Lee and Shemilt, 2003; Woolley, 2003; Rouet et al, 2007; Kitson and Husbands, 2010; Worth, 2016; Sellin, 2018). But it is important to be cautious of badly constructed assessment criteria (McAleavy, 1998) or poorly delivered activities (Counsell, 2000) which can engender misconceptions and reinforce novice-level thinking in students. The question then becomes how can we best go about creating the learning experiences that support this in the history classroom.

The original ambition of the Schools Council History Project was to recreate the practice of history in the classroom setting; that pupils would develop an understanding of the process of historical enquiry by engaging in it. Practical considerations of accessing source materials and finding ways to assess students' progress have limited this ambition over the last 40 years. During this period, the understanding of how historical enquiry works has developed, as has our understanding of how historians engage in source analysis and history teachers' understanding of how to support students in engaging with sources in highly sophisticated ways. However, these activities are often very tightly focused, and may not go far enough to teaching students to 'know-to'. Rouet et al raised the question that "an intriguing issue is to find out whether practice in learning with multiple documents influences the way students learn and reason about complex history problems." (2000, 107). Kitson and Husbands noted that "enquiry, therefore is what history *is* ... in so far as pupils can ever get close to what historians do – and there are inevitably limitations – it is when pupils are engaged in genuine enquiry that this becomes most attainable" (2010: 55). They suggested that the "purest form" of historical enquiry that exists is the A-level investigation task (2010: 56) but this is very late in students' education for their first introduction to a proper historical enquiry. A number of the studies reported by classroom practitioners and researchers share a common feature: that they break away from the pre-packaged source spreads of textbooks and engaged with original (or facsimiles of original) source material in a great deal of depth.

The challenges to providing students with such materials were one reason why teachers came to rely heavily on a narrow range of sources in schools. In recent decades, a number of the practical

considerations teachers have previously faced have changed. One key factor in this is the development of technology. Computers and tablets are now widely available in classrooms, meaning that within a history lesson, or series of lessons, pupils can access the internet with relative ease. And libraries, archives and museums have invested a great deal of time and resources in scanning, creating high- quality images of objects, textual sources and photographs which are freely shared online. Schools no longer need to rely on pre-packaged, preselected source material in textbooks where “a source written in 1066 can look exactly the same as a source written from the trenches of the First World War” (Evans et al, 2003: 9).

Therefore my research aim was to move away from the pre-packaged, exam-size source ‘gobbets’ that pupils have previously encountered in my classroom. I proposed to make use of online source archives to recreate the experience and feel of genuine historical research in order to allow students to encounter extended and multiple documents, to select between them and read for subtext in order to pursue an historical enquiry. I hoped to recapture the intentions of the early Schools Council History Project in creating a valid experience of historical research in my classroom in the hope of improving my students’ understanding of the nature of historical research. For reasons outlined below (see Methodology) my work was focused on year 12 students and so my research question became: “Does working with an online source archive to engage in historical enquiry increase the extent to which Year 12 students display expert-level historical thinking?”

Methodology

Participants and Collaborators

In the context of my research school, I decided to plan an intervention that could be deployed with Year 12 students. A number of considerations fed into this choice. A recent shift in school policy meant that A-level students were not entered for AS exams from 2018, but teaching hours per subject were not reduced. This meant that, with the removal of revision, study weeks, mock exams and the exam period itself from Year 12, approximately 6 weeks' worth of lessons (30) were "freed up". As Director of Faculty I was keen that these learning hours be invested in a meaningful work that deepened students' understanding of history, rather than simply being channelled into exam-driven preparation activities for the final A2 exam. Ethical considerations also played a strong part in my decision to focus on Year 12: GCSE teachers had expressed concern about completing the course and recent revisions to the Key Stage 3 curriculum had increased workload for teachers as they planned and delivered new topics. It did not seem an appropriate time to make further adjustments driven by research goals. Practically, the size of the Year 12 class (12 students) meant that it would be easy to source the technology needed to access online sources (Chromebooks). Obviously one limitation was the small sample size for my study, but I did not feel that there was another class or year group that would yield a bigger sample size which could be used without creating an unreasonable disruption to learning and a burden on the teachers involved.

The Year 12 class itself was split between two Newly Qualified Teachers (NQTs), both of whom were interested in the research project and already engaged in collaborative planning with me for the course, so it seemed reasonable to assume that the research-based lessons would not add an extra burden to their workload. Although I also teach A-level, my class were year 13 and so needed to focus on their forthcoming exams. Furthermore they had participated in research for my Part 2 investigation and so I did not wish to overuse them for research purposes. This led to the situation where my collaborators were delivering the intervention in its entirety, without me present or

participating in lesson delivery. This did not feel inappropriate for the intervention for a number of reasons. Firstly the aim was to explore ways that my department could engage with building students skills of source analysis rather than simply being something restricted to my practice. Secondly the shared planning process would ensure I was actively involved in the design of the lessons in each iteration. Finally it brought the advantage that it was not just my newfound enthusiasm for source skills that might transmit to the students' outcomes. My research goal was to investigate whether working with an online source archive to engage in historical enquiry increased the extent to which Year 12 students displayed expert-level historical thinking. Rather than being directed by my new insights into source analysis, one strength of this collaboration was that it would involve me transmitting my understanding to team members and collaborating to create relevant lessons. Thus I would be able to assess whether the lesson model had the potential to be shared throughout the entire department in future schemes of learning.

Research Design

I adopted an action research model. This was partly to better integrate the research into the students' teaching cycle, rather than abstracting a significant chunk of time in a single block for a new approach. It also better fitted my aims for the research. Elliott defines action research as "the study of a social situation with a view to improving the quality of action within it" (1991: 69). He emphasises the cyclical nature of action research, with reflection and close monitoring and adjustments to the general plan happening throughout the process. This felt appropriate to my planned intervention. Instead of a single massive activity I could deliver a series of small projects, carefully reviewing students' learning and planning collaboratively with the teachers in order to refine the intervention as it progressed.

Crucial to the ethos of the school and the aims of the research was the collaborative nature of action research. Elliot suggests that action research "integrates teaching and teacher development, curriculum development and evaluation, research and philosophical reflection into a unified

conception of a reflective educational practice” (1991: 54). Cohen et al argue that “when operating with collaborative groups of teachers, it is designed to address collective improvement and development” (2018: 441). This reflected my aim that by developing the teaching of sources we would be able to work as a team to reflect on how to improve the quality of delivery beyond the intervention itself. The planning of each lesson cycle and reflection on its outcomes would hopefully form valuable professional development for the teachers involved and support the wider learning of the students as we jointly analysed their understanding of source analysis.

With the emphasis on collaboration, I explained the broad aims of the study to the two teachers and we worked jointly to plan the lessons. The teachers also helped to select the points in the curriculum where they would feel most comfortable delivering the intervention. Initially we had planned on four separate teaching cycles spread throughout the year, but some (other) units took longer to deliver than the teachers had anticipated and so we actually only had time for three (see Figure 1). The first was on poverty in Victorian London and used the notebooks of Charles Booth which have been scanned and made available online by the London School of Economics. In the second the students investigated economic issues in the 1920s and in the third political conflict in the 1930s. One limitation of the research was that it did not provide a totally realistic historical experience of archival research, in that sources had been preselected and packaged with particular foci. However, the quantity of material available meant that students would have to think about their enquiry question carefully and select material from a large quantity, with the potential to consider factors such as relevance, corroboration and provenance. Furthermore, each archive offered transcripts of sources so that, although the students could experience the original documents (in digital form) they would not be disadvantaged if they were unable to read handwriting or faded text.

For each project, students conducted an in-depth research study using the archives. In order to allow them to read sources deeply and carefully (Reisman and Wineburg, 2010,) several lessons were allocated to the investigation. The exact number of lessons varied depending upon the teachers’

views when planning and their judgement during delivery of the lessons. These and other specific adaptations by cycle are explained further in the “Findings and Discussion” section (see below).

Figure 1: A Summary of the Key Iterations of the Action Research Project including Teaching Foci and Research Data Gathered.

Before Iteration 1	Before Iteration 1	Iteration 1	Iteration 2	Iteration 3
Enquiry focus		General enquiry question: “To what extent was the Victorian concept of the ‘undeserving poor’ justified by their evidence?”	Specific hypotheses relating to poverty and economic depression in the 1920s investigated by student teams: e.g. “The 1920s was a bleak time for all working class people.” And “Poverty was mainly confined to the north of England.”	Student-generated hypotheses relating to political instability in the 1930s e.g. “The fascists were more of a threat than the Communists.”
Investigation resources		Charles Booth’s notebooks.	“Twenties Britain” Source Archive	“Thirties Britain” Source Archive
Source archive		LSE: https://booth.lse.ac.uk/notebooks	National Archives: https://www.nationalarchives.gov.uk/education/resources/twenties-britain-part-one/	National Archives: https://www.nationalarchives.gov.uk/education/resources/thirties-britain/
Data gathered	Questionnaire (see Appendix 1)	Questionnaire (see Appendix 1)	Questionnaire (see Appendix 1)	Questionnaire (see Appendix 1)
Written task		Analysis of extended excerpt from Charles Booth <i>Life and Labour of the People in London</i> (1893). Format: text.	Analysis of <i>The Blackleg Miner</i> , nineteenth-century folk song. Format: lyrics and (modern) audio recording.	Analysis of Oswald Mosely Speech, 26 th October 1931. Format: video.

Ethics

All of the students involved were over 16 and both the research and evaluation activities occurred within normal teaching parameters (*modus operandi*), so specific consent from individual students was not needed. This analysis received approval following the completion of a CUREC 1A checklist. A letter was sent to the headteacher outlining the research plan and the ethical implications (see Appendix 6: Anonymised copy of the Headteacher's letter for ethical approval) and her written consent was obtained. The two teachers involved also read the letter and then were verbally briefed before giving their consent. Although individual consent was not needed, nonetheless the students were briefed on the overall aim of the research projects and given an opportunity to ask questions of their teachers and of me before the research began. As the student review questionnaires were not part of their normal teaching cycle in this way, these were made optional, but all students chose to complete both the baseline and subsequent questionnaires. However, students could also complete answers very briefly or skip answers (indeed all the questions) if they wished. In this way I offset the power-imbalance of using lesson time for the research and ensure that consent was properly preserved.

Furthermore, the students' comfort with the process was actively reviewed by both the teachers and by me throughout the study. As older students they were able to express their feelings about the research when asked. I had initially planned to give students a short written questionnaire with a mixture of closed and open questions and then interview volunteers for richer data as to their reasoning. However, when the students were briefed on the research several expressed a reluctance to be interviewed. They attributed this to interview overload as a recent Ofsted visit and previous preparation for this by the Multi-Academy Trust's leadership and the school's Senior Leadership Team had led to a number of them undergoing a large number of interviews, many in their own break and lunchtimes. I therefore placed several of the interview questions into the written survey which they said that they were happy to complete. As a result, I lost out on some key advantages of interviews, especially the depth they offer and the possibility of responding to follow up on any unexpected results in the questionnaire (Cohen et al, 2018: 508). For example, in

response to the question “When an historian is working with contemporary sources from this period what do you think are the main things that make a source useful to their research?” a number of students answered briefly, with comments along the lines of “who wrote it and when” or “who wrote the source”. However, it was unclear how they intended to use that information: whether they were focused on bias or reliability in the way a novice would prioritise (Lang, 1993) or whether they intended to use the sourcing heuristic and consider provenance to enhance the value of evidence (Wineburg, 1998). Without conducting follow-up interviews, it was not possible to determine the meaning of some responses and they were not, therefore, included in the final analysis. Nonetheless the ethical consideration of ensuring that the students were happy with the research process outweighed this loss.

In addition to this, students were concerned about who would see their questionnaires and expressed some worries about the risk of offending their teachers. Whilst this was clearly not going to be the case, and the two teachers involved assured them they were keen to participate in the study, the students had a clear preference for anonymous responses, and so I used both anonymous questionnaires and written tasks. This limited by ability to analyse the data by student features (e.g. prior attainment) and to cross reference between iterations. However there were such small numbers of students involved the value of this data did not seem to outweigh their comfort with the research and so their anonymity was preserved throughout the study.

Data Gathering and Analysis

In order to assess the impact of the intervention, I therefore used questionnaires and written work for the students. I also interviewed the two teachers at the end of the research project to add some context to the students’ self-reported experience drawing on their experience at assessing learning in the classroom.

To analyse the impact of the historical enquiries on students' understanding of the ways in which historians work with sources, I constructed a survey that could be deployed as a baseline and after each research project to assess students' understanding of the work of historians (see Appendix 1: Questionnaire completed by students before the first research project and after each iteration). The survey asked students about their learning from the research project and the types of source historians would use to research their specific period. These questions were designed to support planning the next research project with teachers. The students were also asked more abstract questions such as "When an historian is working with contemporary sources from this period, what do you think are the main things that make a source useful to their research?" With such questions I aimed to gain insight into pupils' level of understanding of the work of historians and to see if their thinking moved beyond common novice misconceptions such as a focus on bias (Lee and Shemilt, 2004; Kitson and Husbands, 2010; Ashby, 2017).

As the questionnaires were being completed during lessons, I designed them to be as brief as possible in order not to take away too much learning time. However, whilst completion time was a consideration, I nonetheless decided to use open-ended questions. Although these take longer to complete, I was concerned that closed questions would unavoidably suggest answers to students, giving the impression of expert-thinking or knowing-to when actually they only knew-that. I was particularly keen to avoid suggesting possible answers to students with directive questions. Open-ended questions put greater "responsibility for, and ownership of, the data much more firmly into respondents' hands" (Cohen et al., 2018: 475). This was important to ensuring that I elicited their actual understanding of the historical process through my survey, especially in the absence of more probative interviews.

I also wished to see whether and how effectively students deployed the sourcing heuristics of expert thinkers. I considered a think-aloud method which had the potential to yield rich data not just about the work product of the students but their cognitive processes. However, I had learned from

Wineburg's research that this has to be carefully taught to participants which would be time-consuming, and so make an unreasonable demand of my participants. I therefore gave students a written assignment after each research project that asked them to analyse a relevant source with the open question "What does this extract reveal about ... [project title]?" . The extracts were all "full" sources rather than gobbets and students completed the task with access to the archives and their notes and in untimed conditions. This was to give them the opportunity to read the extract carefully and several times, which many researchers had concluded was a very important feature of the approach of historians (Wineburg, 1998; Rouet et al, 2000; Woolley 2003).

I chose this open activity focused on a single document (which the students had not previously seen in the archives they accessed) for a number of reasons. One was that a key aim was to break away from focusing teaching on exam techniques or levels. I felt that if I used a question format that students were familiar with, either from the GCSE exams or their A-level papers, they would automatically associate it with that type of assessment and may have produced formulaic answers, even if they were developing a deeper understanding of source analysis. I was also conscious that the project might not work: being faced with so many sources and an open research project could have led to some confusion for students. I therefore wanted to keep the project work distinct from their exam work to avoid any confusion that might arise from crossing from one to the other, until their teachers and I could address it appropriately. Although a limitation of this approach was that it did not directly reveal students' underlying cognitive processes, I analysed their work looking for evidence of the successful deployment of key features of expert historical thinking, including close reading and the heuristics of sourcing, corroboration and contextualisation.

Both the questionnaires and written tasks were analysed by coding responses to analyse patterns of thinking indicative of novices or of experts. I intended to adopt a pre-ordinate categorisation wherein the "categories are derived from theoretical constructs or areas of interest devised in advance of the analysis" (Cohen et al, 2018: 668). For the codes, I looked for evidence of both features of novice

and expert thinking in students' written work, each drawn from relevant research covered in my Literature Review (see above). However, when I came to code the students' responses to the questionnaire and written task I found that the pre-ordinate coding was not entirely appropriate. Some codes did not apply to both tasks. For example, the code "selecting sources by relevance to a specific enquiry" was not relevant to the written task as I had selected a source for the students to analyse. Another code I had intended to use "careful and in-depth reading of sources" could not be confidently ascribed within the written task. Students had clearly read the sources with some care and quoted them, but it was not possible to judge this reliably from the final product alone. This was partly a product of the weakness of not using a think-aloud method or follow-up interviews, so I removed the code from analysis of the written task. I also found that a code I hadn't planned to use "use of sources to test specific hypotheses and adaptation of these in light of source evidence" was clearly evident and supported an expert-level understanding of source use. My literature review showed that this was a valid indicator of expert thinking (Wineburg, 1998) and so I added the code. After an initial read through, I therefore adapted my pre-ordinate coding and so the final codes were responsive to the data gathered. The coding categories on my initial list can be found in Appendix 2: Coding Categories Used to Analyse Students' Responses to the Questionnaire and Appendix 3: Coding Categories Used to Analyse Students' Written Task Work.

A further difficulty was that due to the open questions used in the questionnaire and the extended prose of the written task, it was not possible to clearly predetermine the nature of a single "comment". Some students used bullet point lists or did not separate points into clear paragraphs or sentences within prose and so I had to exercise judgement as to when they were moving on to a new point. Some comments therefore consisted of no more than a couple of words, whilst others extended to several sentences. Examples to illustrate the coding decisions I made can be seen in Figure 2.

Figure 2: Categories of students' analytical thinking and coding examples from the questionnaires and written tasks.

Indications of Novice Thinking	Short form: Code	Example from student questionnaires	Example from written tasks
Negative assessment of sources based on bias or mishandling of reliability and utility (Lang, 1993).	Bias: NN	"Who the person is that wrote out the source, because it allows me to decide if the source is biased or not from the beginning."	"You can't trust Mosely to tell you what the problems really were because he was just trying to say everything was awful and get rid of the government."
Reading sources for information about the topic (Wineburg, 2001).	Information: NI	"I choose sources that are more fact-based first such as cabinet meeting minutes, statistics etc. These give the most information about what was going on."	"Looking at the source we are able to see that the miners were given long hours to work and they were also working under bad conditions. "It in the evening after dark"."
Rigid adherence to early interpretation or filtering of evidence to back-up hypotheses (Wineburg, 1998)	Rigidity: NF	<i>No examples of this code were found in the written questionnaires.</i>	"He wanted to help the poor so even though he said some of them were bad he must have been sympathetic with them."
Use of modern context and ideas to analyse or interpret sources (Wineburg 1998).	Modern Context: NA	"You'd need to be careful with sources that say he hated Jews and then you couldn't trust anything else he was saying."	"As he [Mosley] kept changing parties he may not really have believed what he was saying but just been looking for a way to get elected."
Indications of Expert Thinking	Short form: Code	Example from student questionnaires	Example from written tasks
Careful and in-depth reading of sources (Wineburg, 1998).	Deep Reading: ED	"I would first establish facts and details of what happened and then try to get a deeper understanding of the different opinions and experiences involved as I looked at the source again and looked at more sources."	<i>The written task did not lend itself to reliable identification of these analytical approaches.</i>
Selecting sources by relevance to a specific enquiry (Kitson and	Relevance: ER	"Evaluating the relevance of a source in connection to the hypothesis."	

Husbands, 2010; Sellin 2018).			
Use of the sourcing heuristic or careful consideration of provenance to enhance the use of source as evidence (Wineburg, 1998; Rouet et al, 2007).	Sourcing Heuristic: ES	“Using provenance to assess source utility and shed new light on certain aspects or motives of the source.”	“You expect that they’re going to be angry at the factory owners and moaning about the government because it is a song they sang when they were on strike.”
Use of sources to test specific hypotheses and adaptation of these in light of source evidence (Wineburg, 1998).	Testing hypotheses: EH	“I found a variety of sources connected with the different aspects of my hypothesis.”	“The fact that most of the audience are saluting Mosley as he approaches the stage further solidifies the view that there was enthusiasm for this ideology ... but actually public support here, however, does not necessarily translate to widespread public support... the amount of people who turned up, although seemingly many, would only be significant electorally if such events were attended by so many on a wide scale... so it may be a small pocket of enthusiasm.”
Cross-referencing of sources to support findings – corroboration heuristic (Wineburg, 1998).	Corroboration Heuristic: EX	“When different sources provide alternative interpretations and views of events so that you get a deeper picture.”	“This actually says the same thing as was in the notebooks that lots of people went into poverty because someone died which shows that it wasn’t their fault.”
Contextualisation of sources (Wineburg, 1998; Huijgen et al, 2007a).	Contextualisation Heuristic: EC	“Knowledge that our interpretation now in present day, may be different to the interpretations of those who experienced it at the time.”	“The song seems really violent and threatening when they say they’ll “break the spine” of the blackleg. But if they were on the poverty line and there was no safety in the mines

			then I suppose they could have felt that he [the 'blackleg miner'] was really threatening them and so it would have felt different at the time."
Uncodable/Other ¹	X	"Who wrote it."	"The source is really interesting for studying the mining strikes in the 1920s."

Finally, I conducted a debriefing interview with the two teachers involved in the project, after all of the research projects had been completed. We informally reviewed each project after students had completed their assessments and used this to plan the next research project, but I wanted to formally gather their thoughts and impressions. One weakness of my approach was that I did not interview the teachers after each cycle, which would have yielded many useful insights from the teachers about the students' response and learning. I had made this decision in relation to the teachers' workload but could, with hindsight, have recorded our planning meetings without adding to their burden. In the absence of student interviews, these recordings could have been helpful to contextualise student comments, as the teachers had had rich discussions with students in the course of the lessons they delivered. I did not audio-record the outcomes of our discussions as they affected the planning and delivery of the next iteration of research projects in the Findings and Discussion section (see below). Nonetheless, the single final interview was used to explore questions of student engagement and support needs and to ask the teachers how effective they found the projects as a teaching tool. Their day-to-day knowledge of the students and expertise in planning and evaluating teaching activities could not be overlooked in evaluating the impact of my intervention.

¹ Uncoded comments were not counted in the final data analysis.

Findings and Discussion

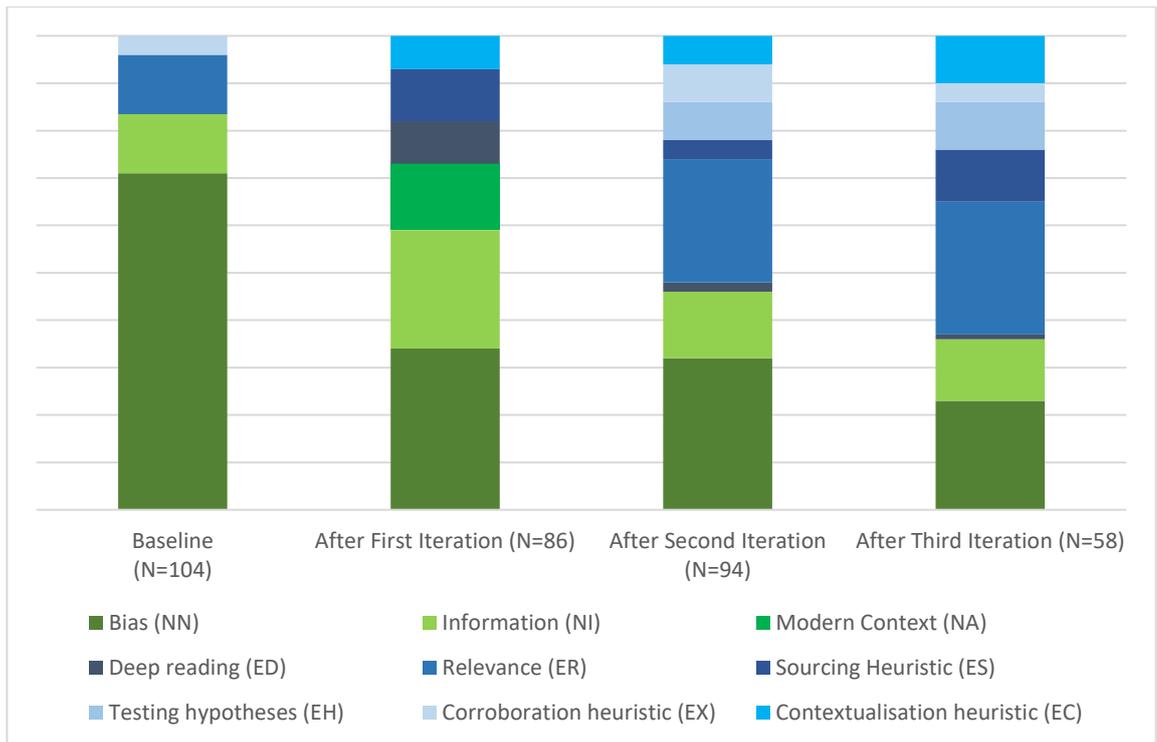
Baseline

The baseline questionnaire supported what my informal discussions with students had suggested; that they had a weak understanding of how historians use sources (see Figure 3). The vast majority (83.5%) of responses to the questionnaire were coded as examples of novice thinking with 71% of comments concerning bias and reliability. Typical responses suggested that the most important consideration when a historian was working with contemporary sources was “whether it is bias [sic]”. The main things that they thought might make a source useful reflected a similar focus with comments such as “lack of bias” and “that it’s from the time so they have a first-hand experience of the time period.” Considering these students had recently completed GCSEs in history and achieved successful results (level 5 or above) this illustrates a weak understanding of the work of historians when analysing sources and fitted with Lang’s (1993) concerns that students focused heavily on bias and LeCocq’s insight that “too often the detection of bias is automatically equated to lack of usefulness” (2000: 54). The remaining 12.5% of the novice level responses focused on gleaning information from sources with comments such as “whether it’s got lots of information so that you know what happened – details and statistics and things like that.”

There were a few comments that indicated an understanding of source analysis that more closely matched that of expert thinkers. 12.5% of comments related to relevance to a specific enquiry (“the relevance to the overall question – what they are looking into”) and 4% addressed the need to corroborate in some way (“how well the sources support each other”).

At the baseline point, students had not been taught a topic that allowed for a source analysis and so there was no written task for them to complete.

Figure 3: A graph showing the percentage of students’ responses which were coded as demonstrating each cognitive conception of historians’ work with sources in the consecutive iterations of the questionnaire.



Findings from First Iteration

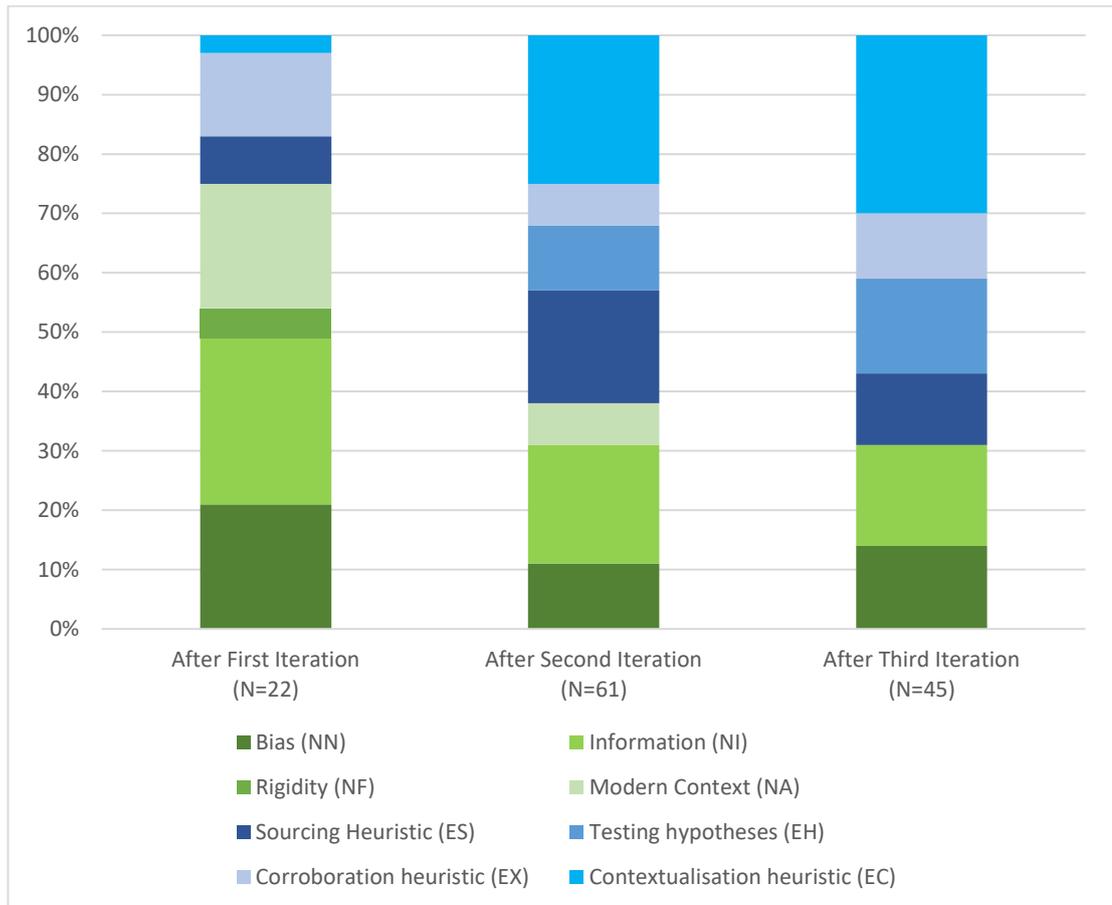
After the completion of the first project, I reviewed students' responses to the questionnaire and their written tasks and discussed the initial findings with the teachers as we planned the second research cycle. The questionnaire showed a slight increase in the proportion of comments indicating expert-level thinking about sources as students reflected on the first research project (see Figure 3).

Most dramatically, the proportion of comments which suggested that sources lacked utility if they were biased fell from 71% to 34%. However, the overall percentage of comments that reflected novice level thinking remained high at 72%, as comments regarding using sources for information had risen (to 25%) and comments influenced by anachronistic thinking had been introduced totalling 13% in all. These particularly focused on issues of prejudice or anti-Semitism, for example the comment that "historians need to know if people have prejudices against a particular group."

The responses in the written task reflected a similar pattern. 75% of responses were coded as demonstrating novice-level thinking with heavy use of the source to extract information (28%) (for example, "It tells us how people became poor and what jobs they did", and negative comments

about bias and reliability totalling 21% of comments. There was also a significant representation of anachronistic ideas from our own society (21%) with students offering comments such as “the way he judges what books they have is really unfair and shows how much people were in each other’s lives.”

Figure 4: A cumulative graph showing the proportions of analytical concepts in the written task that indicated novice-level and expert-level thinking after each iteration of the intervention.



The teachers also felt that the students had been somewhat overwhelmed by the content of the notebooks, which was reflected in their focus on mining the sources for new information. Because the source material was so rich, they reported that the students kept finding new stories to share with each other. They reported that the students were highly enthusiastic about working with the sources and how much they could learn from them. In fact, in the final interview they recalled that the Booth notebooks generated strong engagement from the students:

T2: There was the odd comment of “Oh, wow” and they showed each other so much stuff... it was probably the activity that they showed most excitement about ... they got so much out of them... they were still talking about them the other week.

T1: Individual entries excited them, they would find individual entries where they were “Oh, wow” or found things really intriguing or surprising.

It is noteworthy that the activity did yield some examples of more expert thinking in both the questionnaires and the written tasks. Whilst the majority of comments expressed concern about bias and attitudes that would be unacceptable in modern society, a small number of comments did recognise the potential of such material to be of great use to historians. For example, in the questionnaire, one student noted that “it is really important to understand what people at the time believed, and not just assume they thought like us” and in the written task there was some contextualisation of source content: “Even though he was judging them, they believed in the ‘deserving’ and ‘undeserving’ poor then and nearly all of them were seen as ‘undeserving’ so this was probably just what you did.” However, this level of contextualisation only accounted for 7% of comments in the questionnaire and 3% of comments in the written task. Expert level comments overall represented only 27% of comments in the questionnaire which was a slight shift from the baseline (see Figure 3).

However, there was not enough change to assume that the activity promoted a genuine or lasting improvement in students’ understanding of source analysis. As Counsell (2000) argued, engaging activities can be delivered well or generate problems and the teacher who introduced this activity to the students later reflected in the interview that:

T2: I’m not sure how well I introduced it, it was early in the year and I didn’t know them very well.

We were particularly concerned about two aspects of the investigation. The first was that, although students had been conducting an overall enquiry into the nature of poverty in London during the 1880s, which they had previously been studying, they were not working to test specific hypotheses. This is a key feature of historians’ work, identified as a positive outcome of the early SCHP work by

Shemilt (1980: 47) and a feature of expert thinking by Wineburg (1998). Pickles argued that experts working with sources need to construct an “event model” which they then test with evidence (2010: 44). If students failed to appreciate this approach to sources, then it became harder for them to see the value of the sources in other ways (e.g. the value of the bias they might encounter) and more tempting just to mine the sources for information. We therefore decided that for the second research project, students would generate hypotheses about economic issues in the 1920s from their prior teaching and reading. Students could then test these hypotheses with evidence working in pairs, to facilitate a rich and focused dialogue.

The second adjustment was to explicitly model expert thinking to students prior to them conducting their own research. The teachers delivering the lessons had not done this in the first cycle, but Huijgen et al (2017a) had identified “performing historical contextualisation” as one of the key training methods to teach students how to think as experts. Reisman and Wineburg (2010) also considered it one of the most important learning tools and showed videos of experts thinking aloud about sources on their website. In the planning meeting we looked at one of these videos and agreed that it would be helpful. To ensure that the teachers were confident with this relatively new skill, we planned the analysis of one source together, agreeing on some appropriate analytical comments and questions to share with students. In the second research cycle, students were therefore asked to generate specific hypotheses to test, with the teacher modelling one of their own, and then to use the source archive to start testing these hypotheses, with the teacher also having modelled how they would engage with a source.

Findings from Second Iteration

Following the second research project, both teachers were highly positive about the quality of thinking and analysis they had experienced in discussion with students and the data showed a significant shift in students’ thinking. From the questionnaire 54% of comments were coded as

suggesting expert-level thinking (see Figure 3), up from 27% after the first research project. The written tasks also showed a significant shift with 62% of comments being coded as suggesting expert-level thinking (see Figure 4).

Analysis of the questionnaire responses showed students had made small numbers of comments about each heuristic, with figures ranging from 2% for a recognition for 'deep and careful reading' to 8% each for testing hypotheses and the corroboration heuristic. However, the overwhelming predominance of expert level comments related to selection of sources for relevance. In many ways this was a predictable outcome of giving students access to a large quantity of sources, some of which were irrelevant to and others of which were only partly relevant to their hypotheses. As they had formulated their own hypotheses, there could be no pre-packaging of source material to ensure relevance, or development of questions targeted at specific sources. Evans et al (2003) had pointed out that the pre-packaged nature of textbooks meant that sources looked very similar to one another and encouraged students to treat the sources as tools for extracting information, like the rest of the text in the book. Woolley (2003) found that breaking away from source gobbets to a full length text encouraged her students to think carefully about relevance and to deploy the sourcing heuristic to select which parts of the text to read for the purpose of their specific enquiry.

Although there was limited evidence in students' comments of them deploying the sourcing heuristic, the point about source relevance had clearly driven home. All but one student offered at least one comment that sources had to be carefully selected by historians, for example "[the most important thing] is relevance not just to the topic but to the specific idea your [sic] testing. Historians have to choose which sources to spend time on carefully." This seemed to represent a significant shift in their understanding of how historians actually conduct research in the real world, and one which is unlikely to have embedded itself into students' minds without the experience of actually engaging with a generous archive and having to select which parts to read. It is of note that the idea of selection by relevance was not heavily commented upon from their work with Booth's

notebooks (used in the first iteration) which were so extensive as to require students to select which parts to read. This might seem to contradict Woolley's (2003) finding, but her students were already familiar with the text of *The Withered Arm* and so had a basis upon which to select strategically. Ours did not have the appropriate overview of Booth's notebooks and so dived in, selecting sections to read largely at random, based on which handwriting they could read or which entries gave them most information (as indicated in their questionnaire responses).

The written task showed a range of indicators of expert thinking. Although students had made little reference to sourcing in their reflections on the second research project, when they were given a source 19% of their comments indicated they had considered it. For example, one student noted that they had "expected them [the miners] to go on about the employers or the government, but they actually seemed to hate the blacklegs more." Comments such as this indicated that students were starting to form expectations of the sources by considering their provenance and that these were they were then more open to developing or changing their ideas as they learned from the source. The students were starting to see beyond the information that sources offered and "position themselves to learn" from the sources in the manner of experts (Wineburg, 2007).

The contextualisation hypothesis was also strongly evident in the written tasks with 25% of comments being coded as such. Students commented on specific words and phrases used, or raised questions about the attitudes of the time. When words and concepts surprised them they did not attribute these to bias or judge them but reasoned about what they might indicate. For example, one student wrote "It pushes them to join the union and at first I thought that when it said they shouldn't wait until their dying day they meant because of the conditions in the mine. But they might actually have been threatening them when they said it wouldn't be far away. This shows how much they needed to stick together; they didn't have the same laws that we have now. They weren't protected. They needed each other much more so they really hated the blacklegs."

Of course, in neither the questionnaire nor the written task were novice comments eliminated. They still made up 46% of responses to the questionnaire and 28% of comments coded from the written task. Concerns about bias continued to feature highly (32% of comments on the questionnaire) and 11% in the written task. In the written task these were restricted to two answers, where students raised questions about the value of a song with one suggesting that “They hate the blacklegs so much it isn’t reliable to tell us much. Songs only give one point of view even when lots of people sing them.” As well as showing a negative assessment of sources based on bias and (perceived) reliability issues, this comment also used modern context to explain their analysis, perceiving songs from the early C20th as operating in the same way as the music industry of the 21st century. This was identified by Wineburg (1998) as a feature of novice thinking; the student is reaching for context to understand the source but taking ideas from the wrong time period, without questioning how far they apply to the period of study.

Focusing on using the sources for information remained the most common type of novice-level thinking in the written answers. Interestingly this had dropped considerably in the questionnaire responses to only 14% of comments. Students were far less focused on how “much” information an historian could get from the source and far more on its relevance for testing the hypothesis they had formulated. In this way their thinking about the abstract skills of an historian had undergone a shift as they started to understand the more nuanced use an historian could make of a source. However, when given a source of their own to analyse, they continued to comment extensively on the information they could glean from the source (20% of comments).

I had coded a focus on seeking information from sources as novice-level thinking because the extensive research behind Project CHATA suggested that “confusing ‘sources’ and ‘information’ was a key impediment to students’ progress (Lee and Shemilt, 2003: 22). This finding was echoed by Rouet et al (2000). Some of these students, though, may have held a more sophisticated cognitive model than simply confusing the sources with ‘information’. For example, one student wrote “The

extract mentions 'blackleg miner' which is interesting because it tells us what they called the men who wouldn't go on strike, which shows that relations aren't positive if they have a name for people who don't go on strike." Without a think-aloud task or a follow-up interview it was hard to probe into this whether the students was simply happy to extract information from the source, even on the basic level of the noun they used, or whether they were starting to think beyond this to different perspectives that the source could yield. As they didn't develop the idea further this was coded as extracting information, but it would illustrate the advantages of further research with more dialogue with students to unpick the cognitions behind their answers.

One thing that was strikingly lacking from the students' written answers was any indication of the corroboration heuristic or efforts to use the sources they had been studying over the previous 4 lessons to draw out more from the source. Only 7% of comments indicated corroboration with other sources and these were very brief, such as the student who wrote "they mentioned they were expecting violence in the source about the national strike, so it probably wasn't just a song... they probably were violent to those who didn't strike." With extensive contextualisation (25% of comments), it is highly likely that the students were drawing on the other source research that they had done to make sense of *The Blackleg Miner*. It is possible that there was some mental corroboration but they may simply not have been motivated or had the time to look up specific source references whilst writing out their answers. However, the questionnaires showed no greater indication that students saw the value of corroboration, with only 8% of comments indicating that historians would cross-reference documents to build a richer picture.

In reflecting on the second research project, both teachers felt it had been a positive learning experience for students. They found the structure of the task where students researched sources to test hypotheses challenging and manageable. Reflecting in their interview at the end of the interventions they noted that they had felt that the quality of conversations they were having with students as they circulated during the lesson had been very high. Overall, after the initial content

teaching, they had spent 7 lessons generating hypotheses, modelling source engagement and conducting the research, with a further lesson for the review questionnaire and written task. Both teachers questioned whether this was a reasonable allocation of time for such an activity and wondered whether this would be practical to do more than once or twice in a whole A-level. We therefore decided to adopt largely the same format but to work with a much reduced time-frame of three lessons with one more for the follow up tasks and to see what students could learn with parameters that more closely reflected day-to-day teaching.

Findings from Third Iteration

There was very little shift in students' responses between the second and third cycles. In responses to the questionnaire, the proportion of novice level comments remained at 36%, down from 46% after the second research project (see Figure 3). This was a slight improvement but not a dramatic shift. Most of the change came from a drop in dismissing sources because of bias which comments fell from 32% to 23%. The most dominant expert-level comments continued to focus on selecting sources for relevance, with a small number of comments directly indicating each of the key heuristics ranging from 4% to 11%.

The data from the written tasks was also very similar with 31% of comments representing novice-level thinking, slightly down from 38% after the second research project (see Figure 4). There were small increases in evidence of the contextualisation heuristic (up from 25% to 30%) and the recognition that sources should be used to test hypotheses (from 11% to 16%), both of which had been a key feature of classroom discussions and activities for the last two cycles. However, the differences were relatively small and could simply be indicative of the specific sources students were looking at for the written task (a protest song sung in the 1920s in the second intervention as compared to a video of a speech by Oswald Mosley in the 1930s, used in the third). Similarly, a slight increase in the proportion of comments dismissing the source because of bias (up to 14% from 11%) was disappointing at this stage of the intervention when students might have been expected to see

the advantages of engaging with a source from Oswald Mosley. But whilst expressing concerns about reliability and bias, students nonetheless drew inferences from the source and so they did not, in practice, dismiss it for bias.

However, it is worth noting that in the reduced time given to the 1930s research projects, students did not revert to novice-level thinking. How they managed the extensive 1930s archive in the reduced time they had is not clear but the richness of their understanding does not suggest they reverted to single-reads of the source from the deep reading they had been doing. This might mean that they read a smaller number of the sources, perhaps using the sourcing heuristic and their growing awareness of the importance of relevance to filter source material. However, without follow-up interviews or think-aloud activities it is not possible to confirm this.

One comment from the teachers that is worth note is that they felt, on reflection, that the structure of the 1920s research project had been the strongest.

T1: I think the structure we used for the 1920s work was better, in terms of the hypothesis building based on their understanding. And then using their exploration to test those. In the thirties where we gave them hypotheses but I wish we hadn't. They didn't seem as familiar with the context, whether that was because they had less time, I don't know. But I think the structure of the 1920s worked better.

Findings Across all Iterations

Over the course of the project students demonstrated a shift in thinking from novice-level misconceptions to comments which indicated expert thinking, although novice-level thinking remained present throughout.

In the questionnaire there were very few comments that indicated expert level thinking in the baseline responses and yet the full range of comments was reflected in the later iterations. The students focus on bias remained present but was significantly reduced, and their understanding of the importance of selecting sources for relevance to a particular enquiry, rather than judging them in isolation shifted demonstrably (Figure 3).

In their thinking about sources, students may not have been as concerned with bias as the data seems to suggest. In reflecting on their responses to the questionnaire one teacher suggested that the question about limitations might have forced them into thinking in that way.

T1: What I thought was interesting was the questions you posed in the survey really shaped their answers. I don't think that when we discussed utility in the lessons and I went around chatting to them none of them were saying this source is rubbish because it is biased. But as soon as they got to the question about limitations they went right back to it ... so I think the framing of it has some interesting implications for how we ask them questions and teach them to answer exam questions without being restricted by the questions.

In light of his comments I assessed what proportion of the comments about bias arose just in that question and discovered it to be below 30% in the first and second iterations (18% and 26% respectively) but a considerable 75% and 68% in the third and fourth iterations respectively. The seemingly enduring focus on bias may, therefore, be a product of a poorly phrased question which demanded that students think of sources in terms of their limitations rather than their uses for historians. Ironically, this would reflect the very mistake that the SCHP and 1988 and 1991 National Curriculum attainment targets made according to McAleavy (1998). It cannot be demonstrated that the flawed question led to flawed responses, but it would certainly fit many of the critiques of the exam criteria by professional teachers. If I were to run the survey again with future students, I would certainly remove this question aware of the risk of instilling or reinforcing misconceptions.

In the written tasks a similar pattern of shifting thinking occurred. Although there was no baseline for comparison, the written task after the first project showed that students relied heavily on low-level source analysis which indicated some of the misconceptions about bias identified by Lang (1993) and confusion between sources and 'information' identified by Lee and Shemilt (2003). In later iterations students increasingly demonstrated expert-level thinking, especially with regards to testing hypotheses and the contextualisation heuristic. (See Figure 4).

One limitation of the research was that the results of the questionnaire and the written task could not be directly compared with each other because of the change in coding categories. For example, it did not make sense to have a “relevance” category in the written task when the students were being given a source to analyse and an enquiry question that had obviously been designed to be relevant. A disadvantage of preserving the students’ anonymity in their questionnaires was that I was not able to compare questionnaire comments with those on the written task or profile students’ responses to see, for example, whether lower attaining students were more likely to show indicators of novice-level thinking. With such a small sample, this is unlikely to have been conclusive, but it might have been a valuable indicator for future planning. However, I was able to track the spread of expert-level comments across different iterations of the investigation. In the baseline questionnaire, all of the expert-level comments came from four of the twelve students whereas in subsequent iterations every student made at least one comment at expert-level (see Figure 5). An increase was also demonstrated in the written task: whereas after the first research project four students offered no analysis coded at expert-level, in the second iteration this was only two students and in the third only one (see Figure 6).

However, whilst the percentage (and number) of novice-level comments or analytical points decreased steadily over the course of the investigation, it is noteworthy that the majority of students still included some elements of novice-level thinking in their responses (see Figure 5). All twelve students had at least one novice-level comment in the first two submissions of the questionnaire and eleven of the twelve in the final version. Throughout the written tasks, all students also had at least one comment coded as novice-level (see Figure 6).

Figure 5: A graph showing the number of students in the questionnaire that had at least one comment that indicated each level at each iteration.

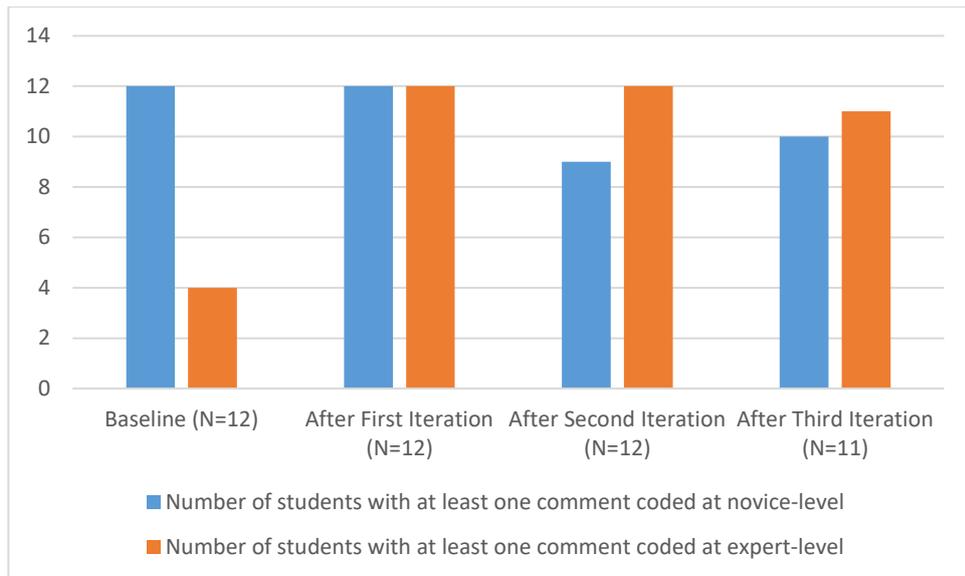
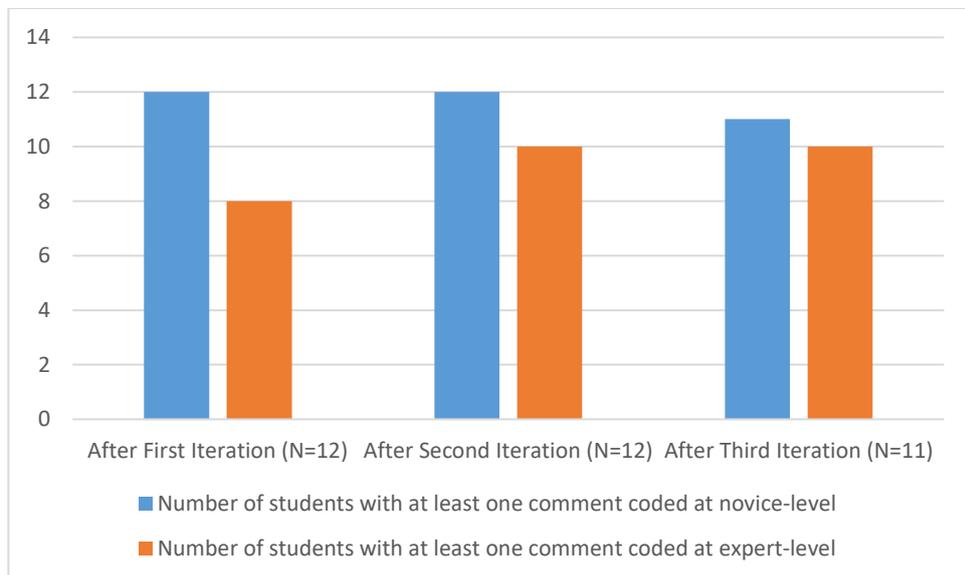


Figure 6: A graph showing the number of students in the written task that had at least one comment that indicated each level of thinking after each iteration of the intervention.



This analysis helps compensate for the inability to connect written tasks with questionnaires, showing that novice-level thinking remained present in the work and understanding of most students by the end of the third iteration. Clearly proficiency or fully expert-thinking remained some way off, even after conducting archival research modelled on the work of historians. However, most

important to us as a department was the shift towards expert-level thinking and the spread of these ideas to the work of nearly all students.

That this represented a genuine shift in thinking was supported by the analysis of the teachers. They commented that:

T2: They really got their head around the fact that this is a hypothesis, does it have to change based on what I look at and learn from the sources.

Students were particularly clear on the need to select material relevant to a specific enquiry (see Figure 3) and on the nature of testing hypotheses and the contextualisation heuristic (see Figure 4). It is not clear why some aspects of expert thinking were more clearly evident than others after the experience of conducting historical research. McAleavy (1998) noted that there are a limited number of ways to assess the ability to use sources and that this had influenced the choices made by exam boards and teachers. Outside of exam conditions we were able to break away from these limits and assess students' understanding of the evidential value of a journal entry, a song, and a recording of a speech. I deliberately used an unfamiliar format to break students away from the constraints and training of their previous experience with written answers.

As an action research project, the aim was to work collaboratively with teachers to improve the quality of action and integrating teacher development within the project. The teachers involved were therefore asked to comment on two final aspects of the project: their own experience of delivering the lessons and the students' response in terms of engagement with the sources. They responded positively on both grounds:

T1: The lessons were easy to deliver and meaningful at the same time. The conversations I was having, without hours of planning, were really meaningful and high quality. It was very doable.

T2: They learned that a source is not just like, in a history lesson, a source; it isn't a piece of paper with 5 lines on it and this is a "source" and this is how you interact with it. They understand that that has come from something, something

someone has written and there is context to that and think about the reason why it has been written. It wasn't written to be on an exam paper in 200 years' time.

T1: It wasn't hard to motivate them to sit for over an hour and look through them. They were at their most focused, I would say, for the year.

T2: And when we told them that we'd be doing the same for the 1930s there wasn't any reaction like "Oh, more sources" that you normally get. They very happily accepted it and got on again really well.

This was an important outcome. If we are to move students beyond seeing sourcework as a "parlour game" (Smith, 2001: 9) they have to see beyond the gobbets they are presented with in exams. "Faced with questions which explore what sources *cannot* tell you rather than the opportunities to use evidence properly in order to extract what they can, pupils can become understandably cynical" (Byrom 1998: 61). Our students may still have shown some indications of cynicism and a focus on bias, but they engaged closely with all three iterations of the research projects and their teachers were confident that they were starting to think of sources in a new way, beyond what we had previously offered in our history teaching.

Conclusions and Implications

My aim was to use online source archives to try and realise the vision of the SChP and recreate the practice of history in the classroom setting. I wished to evaluate the impact of this approach upon pupils' understanding of source analysis and particularly to determine whether it might improve their insight into the work of historians and their ability to think at an expert level rather than carrying the misconceptions of novices into their A-level studies.

The research demonstrated the power of using online source archives to give students a more realistic insight into the research work of academic historians. The range of resources available online for use in the classroom is now extensive and reliance on textbooks where sources are pre-packaged for a specific purpose and set of questions is no longer necessary. The teachers involved found the activities to be easy to deliver and "meaningful" and reported that they were able to have high-level conversations with students as they engaged in their own archival research. Students were able to see that sources do not all look the same whether written in 1066 or during the First World War (Evans et al, 2003). McAleavy (1998) noted the practical limitations of the format of assessment in determining certain types of sources and questions can be used. In the past I have allowed this to limit my thinking in the classroom, providing students with a limited range of source types (images and texts) often pre-packaged into short 'gobbets' in the format they would receive in the exam. Even sources such as songs and speeches have generally been converted to text for the classroom. Using online archives, students were able to: read the handwritten pages of Booth's notebook; see the full front page of the Daily Mail and look for comments and stories relating to strikes; listen to protest songs; and watch videos of marches in the 1930s. Their teachers reported a high level of engagement with the material, in contrast to the sadly common reaction of "death by sources" (LeCocq, 2000).

Students were not just engaged with the sources but started to show insights into the work of historians and indications of expert thinking. Their focus on mining sources for information as

though they were textbooks and their concerns about bias and reliability were greatly reduced when working with a selection of real sources. They began to see that the purpose of sources for historians is to generate evidence related to a specific enquiry, and to exhibit some of the heuristics of expert thinkers, especially contextualisation. Ashby argued that “the ultimate question about a source is not about bias or reliability but will it, and how might it, bear the weight I want to place on it as evidence for the claim I want to make, or the hypothesis I want to generate or test” (2017: 148). In their questionnaires and responses to the written task, students showed a greater understanding of this than I have previously experienced, and far beyond that shown in the baseline test or first iteration. Two things that seemed to particularly support the shift in students’ conceptions were asking them to test specific hypotheses and modelling expert thinking. The impact of these two activities is supported by extensive research evidence (Ashby, 2004; Reisman and Wineburg; 2010). It is my conclusion that it was coupling these activities with the context of an archival research enquiry that helped students to make the connection between the abstract and the real work of historians and break away from a focus on answering exam questions.

Nonetheless the students’ responses continued to show evidence of novice-level misconceptions especially regarding source bias and mining sources for information. One weakness of the research is that I did not gather data in a way that allowed me to better pinpoint the causes of these continuing misconceptions. One possibility is simply that they are enduring and hard to shift, as many teachers before me have found (Lang, 1993; O’Neill, 1998; LeCocq 2000). Further research experiences of this nature may well do more to promote expert-level thinking in my students. Another possibility is that there are certain subsets of students who would benefit from a more focused intervention, possibly those who are lower attaining. However, I could not break my data down to confirm this hypothesis and it remains a question for future research. There was some indication that these patterns of thinking were reinforced or encouraged by a particularly unhelpful question that focused on limitations. This would fit with the criticisms of many professionals about the impact of poorly constructed assessments and questions, notably Lang (1993) and McAleavy (1998). This hypothesis

would certainly be worth testing in future research and in the meanwhile acts as a warning to me as a teacher about the importance of carefully planning assessment questions and reflecting upon the possible misconceptions they can generate.

Mason and Spence (1999) suggested that the hallmark of an expert thinker is knowing-to rather than simply knowing-about. It is not clear that our students achieved the former at any point in our research cycle. However, Alexander (2003) summarised research from the Model of Domain Learning (MDL) which has been widely tested in a range of subject areas in schools. Alexander argued that traditional novice-expert models were not designed for schools and drew too sharp a contrast between the thinking of experts and “neophytes” thinking to be more than “useful starting points” (2003; 10). She proposed that these should consist of: acclimation “the domain-specific tasks these students encounter in schools are commonly novel and challenging thereby prompting frequent use of surface-level strategies”; competence “as the problems typifying an academic domain become increasingly familiar, competent learners delve into such tasks by applying a mix of surface-level and deep-processing strategies.”; and proficiency/expertise “to create new knowledge, experts must be well-versed in the problems and methodologies of the domain and actively engaged in *problem finding*.” (2003: 11-12). She argued that educators should not expect expertise in schools, but “should expect to see marked changes in learners’ knowledge, strategic processing and interests” (2003: 12). Whilst I would not abandon the ambition of building greater expertise in my students and moving them to the point where they effectively know-to deploy expert heuristics in their source analysis, Alexander’s model seems to best fit the outcomes of this study. Students did not achieve proficiency in handling sources, but there were marked changes in their knowledge, processing and interests. For Alexander, motivation is a crucial element of developing expertise and the students exhibited the biggest shift between the first and second iterations when, in the estimation of their teachers they were motivated in the investigation of their own hypotheses.

During the course of the research, our learners showed indications of moving from acclimation and surface-level strategies to competence with a mixture of surface-level (or novice-level) and deep-processing strategies. However it is not clear that they reached proficiency, based on the continuing presence of novice-level comments in both the questionnaires and in students' written work. One reason for this might be that the students have experienced this intervention comparatively late in their education. Some research indicates that students can start developing strategies for contextualisation deep reading, sorting for relevance and even contextualisation at least as early as Key Stage 3 (Counsell, 2000; Woolley 2003). Both of my teacher collaborators were keen to adapt this activity to younger students and we intend to devise models for archival research with Year 9 and 10 students in the next academic year. As the research was being undertaken, I was already attempting to deploy some of the strategies we felt were having impact with Year 12, lower in the school including deep-reading of extended texts (for example, the full Treaty of Fort Laramie, 1868 with Year 10) and modelling of the sourcing heuristic. Student responses were positive and there is clear scope for further research into the possibilities of using such activities with students of much younger ages.

As a teacher, I embarked upon this research with a limited enthusiasm for "sourcework" and a focus on teaching my students to meet exam criteria rather than think and act as historians. My teaching was reinforcing misconceptions they held and contributing to a weakness in their understanding of the nature of evidence as historians. Through the literature review and the delivery of an iterative cycle of action research in collaboration with two colleagues I have come to better understand how students can engage with sources in the classroom beyond the rigid assessment levels and exam criteria we have previously been using. The process of collaboration and joint planning and working closely with the NQTs who taught the lessons to the students themselves was a powerful one. By the end of the project our shared understanding of how historians use sources had developed as I had shared research literature with my team members. However, beyond this, the work of collaboratively turning this into, and then evaluating and adapting lesson activities, had helped to

build a shared vision of how we might take this work forward as a department. This particularly centred on how we would teach about and model expert thinking with the lower school. Without the ongoing research project, there is little conceivable likelihood that our team would have spent so much time thinking about and working together to improve our delivery of sources. Our NQTs would potentially have been inducted into the previous regimen of activities and may have carried this forward in their practice. A single instance of practitioner research would not have addressed this: after the first project there was much to review and develop and it was only after the second iteration that we really started to see the impact in students' thinking. However by engaging in an action research cycle as a team we changed our thinking as well as our students, and our vision for the use of sources in our department going forwards.

Appendix 1: Questionnaire completed by students before the first research project and after each iteration.

- 1. In your studies of history, what would you say are the 3 most important things you have learned about how historians use contemporary source material?**
- 2. When an historian is working with contemporary sources from this period, what do you think are the main things that make a source useful to their research?**
- 3. When an historian is working with contemporary sources, what do you think are the main things that limit how useful a source is to their research?**
- 4. When working with a source you have not previously seen, what is the first thing you think about and why?**
- 5. What three 3 things do you think are most important for you to consider when analysing a source as an historian?**
- 6. When conducting research with sources, how do you decide which sources to use?**

Appendix 2: Coding Categories Used to Analyse Students' Responses to the Questionnaire

Indications of Novice Thinking	Short form	Code
Negative assessment of sources based on bias or mishandling of reliability and utility (Lang, 1993).	Bias	NN
Reading sources for information about the topic (Wineburg, 2001).	Information	NI
Use of Modern Context and ideas to analyse or interpret sources (Wineburg 1998).	Modern Context	NA
Indications of Expert Thinking		
Careful and in-depth reading of sources (Wineburg, 1998).	Deep Reading	ED
Selecting sources by relevance to a specific enquiry (Kitson and Husbands, 2010; Sellin 2018).	Relevance	ER
Use of the sourcing heuristic or careful consideration of provenance to enhance the use of source as evidence (Wineburg, 1998; Rouet et al, 2007).	Sourcing Heuristic	ES
Use of sources to test specific hypotheses and adaptation of these in light of source evidence (Wineburg, 1998).	Testing hypotheses	EH
Cross-referencing of sources to support findings – corroboration heuristic (Wineburg, 1998).	Corroboration Heuristic	EX
Contextualisation of sources (Wineburg, 1998; Huijgen et al, 2007a).	Contextualisation Heuristic	EC
Uncodable/Other		X

Appendix 3: Coding Categories Used to Analyse Students' Written Task Work

Indications of Novice Thinking	Short form	Code
Negative assessment of sources based on bias or mishandling of reliability and utility (Lang, 1993).	Bias	NN
Reading sources for information about the topic (Wineburg, 2001).	Information	NI
Rigid adherence to early interpretation or filtering of evidence to back-up hypotheses (Wineburg, 1998)	Rigidity	NF
Use of modern context and ideas to analyse or interpret sources (Wineburg 1998).	Modern Context	NA
Indications of Expert Thinking		
Use of the sourcing heuristic or careful consideration of provenance to enhance the use of source as evidence (Wineburg, 1998; Rouet et al, 2007).	Sourcing Heuristic	ES
Use of sources to test specific hypotheses and adaptation of these in light of source evidence (Wineburg, 1998).	Testing hypotheses	EH
Cross-referencing of sources to support findings – corroboration heuristic (Wineburg, 1998).	Corroboration Heuristic	EX
Contextualisation of sources (Wineburg, 1998; Huijgen et al, 2007a).	Contextualisation Heuristic	EC
Uncodable/Other		X

Appendix 4: Example of a Completed Student Questionnaire with Responses Coded.²

<p>1) In your studies of history, what would you say are the 3 most important things you have learned about how historians use contemporary source material?</p> <p>Evaluating the relevance of a source in connection to the hypothesis.³</p> <p>Assessing the content of the source in connection with context of the time. Knowledge that our interpretation now, in present day, may be different to the interpretations of those who experienced it at the time.</p>	<p>Relevance: ER</p> <p>Contextualisation heuristic: EC</p>
<p>2) When an historian is working with contemporary sources from this period, what do you think are the main things that make a source useful to their research?</p> <p>How relevant it is to the research,</p> <p>who wrote/created the source,</p> <p>what the person's relation to the source is so you know how bias they may be.</p>	<p>Relevance: ER</p> <p>Uncodable: X</p> <p>Bias: NN</p>
<p>3) When an historian is working with contemporary sources, what do you think are the main things that limit how useful a source is to their research?</p> <p>I think provenance is the thing that limits how useful a source is as if a source is biased it makes the source unreliable.</p>	<p>Bias: NN</p>
<p>4) When working with a source you have not previously seen, what is the first thing you think about and why?</p> <p>I think the period that the source is from and the events that I may know of/what life was like, a quick overview.</p> <p>That way I am able to then start to understand in more depth what the source is saying/showing and how it will relate to the question.</p> <p>I would first establish facts and details of what happened and then try to get a deeper understanding of the different opinions and experiences involved in order to reach a conclusion that discussed the issue entirely.</p>	<p>Uncodable: X</p> <p>Relevance: ER</p> <p>Deep Reading: ED</p>
<p>5) What three 3 things do you think are most important for you to consider when analysing a source as an historian?</p> <p>The other events that were going on at the time that the source was written</p>	<p>Contextualisation: EC</p>

² This questionnaire was completed after the second research cycle.

³ Spacing was added by the author.

<p>and who the source is by.</p>	<p>Uncodable: X</p>
<p>6) When conducting research with sources, how do you decide which sources to use?</p> <p>I found a variety of sources which connected with different aspects of my hypothesis,</p> <p>prioritising government records and police reports to try to provide a less biased and more statistics-based view of the economic situation as these gave me most facts about the situations.</p> <p>I also gravitated towards more text-based source types, avoiding images.</p>	<p>Relevance: ER</p> <p>Bias: NN</p> <p>Uncodable: X</p>

Appendix 5: Example of a Completed Student Written Task with Response Coded.⁴

<p>What does this extract reveal about the industrial relations and the lives of the working class in the 1920s?</p>	
<p><i>The BlackLeg Miner</i></p>	
<p><i>Please note the video is a modern rendition of the song:</i> https://www.youtube.com/watch?v=9OvBwiBRHRU</p>	
<p>It's in the evening after dark, When the blackleg miner creeps to work, With his moleskin pants and dirty shirt, There gaans the blackleg miner!</p>	
<p>Well he takes his tools and doon he gaans To hew the coal that lies below, There's not a woman in this town-row Will look at the blackleg miner.</p>	
<p>Oh, Delaval is a terrible place. They rub wet clay in the blackleg's face, And around the heaps they run a foot race, To catch the blackleg miner!</p>	
<p>So, divvint gaan near the Seghill mine. Across the way they stretch a line, To catch the throat and break the spine Of the dirty blackleg miner.</p>	
<p>They grab his duds and his pick as well, And they hoy them down the pit of hell. Doon ye gaan, and fare ye well, You dirty blackleg miner!</p>	
<p>So join the union while you may. Divvin't wait till your dying day, For that may not be far away, You dirty blackleg miner!</p>	
<p><i>The Blackleg Miner</i> was a nineteenth century protest song that saw a revival in the 1920s and was popularly sung on the picket line.</p>	
<p>A “Blackleg” is a slang term for a strikebreaker – a miner who goes to work whilst the others are on strike. In the Northumbrian dialect work rhymes with dark and “divvint gaan” means “don’t go”. “Duds” are clothes.</p>	
<p>This source shows how industrial relations were more of a concern between the workers themselves rather than between workers and the government. In the song it is unclear who "they" is, however the way they call the strikebreaker the derogatory term of "dirty blackleg" suggests that they are bitter peers rather than dominating government.</p>	<p>Testing hypotheses: EH. Student had expected anger to be focused on the government.</p>

⁴ This written piece was completed after the third research cycle.

<p>The lives of the working class can therefore be seen to be of varying well being. Some of them were happy to keep working despite the poor conditions: "pit of hell". Whereas others were chanting songs like these to encourage strikes.</p> <p>The fact that the mining industry has an issue like this shows that it was struggling during the twenties.</p> <p>The fact that the source is a song, most likely spread by word of mouth, implies that it was popular and well known.</p> <p>This means that a large portion of the population will have been affected by the issues of the mining industry and therefore conclusions drawn from this source can be relatively accurate in representing the working class as a whole.</p> <p>In the last section of the source they sing "join the union while you may" referencing trade unions. These show a clear divide in industrial relations because the workers still feel they need representing by their own body in order to challenge the say of the government even though they had the Labour party now.</p> <p>It can be implied that industrial relations were weak and the lives of the working class revolved toward improvements. These improvements are hinted at when phrases such as "dirty shirt" ;"break the spine" and "after dark" are mentioned. It can be inferred that uniform, hygiene and sanitation, long working hours, risk of injury or death are all problems the miners were striking for in order to be resolved.</p> <p>The source itself was not original but there was a "revival in the 1920s" which shows that the life of the working class in the twenties had not recently improved because they were still singing protest songs that had been used before.</p> <p>The fact that it was a revival may also be reason to assume the workers were more angry than the government had experienced in the past, because they had been oppressed for a period of time, and therefore industrial relations were volatile and full of increasing intent.</p>	<p>Information: NI.</p> <p>Information: NI</p> <p>Contextualisation: EC</p> <p>Uncodable: X Student has used the sourcing heuristic but reached an invalid conclusion.</p> <p>Contextualisation: EC</p> <p>Information: NI</p> <p>Sourcing: ES</p> <p>Sourcing: ES</p>
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Appendix 6: Anonymised copy of the Headteacher's letter for ethical approval

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Director Professor Jo-Anne Baird



1st January 2019

Dear _____,

I am writing to enquire about conducting research in school this academic year. As you know, I am studying for the Master's in Learning and Teaching at Oxford University, supervised by Dr _____. In my final research project "*Being an historian: an investigation into the impact of using online source banks to replicate the research experience of historians in the A-level classroom*". I will explore the impact of recreating historical research in the classroom using online archives on A-level students' engagement, motivation and, crucially, understanding of the research processes of expert historians.

The research will take place with two A-level classes and in partnership with the history NQTs who have expressed interest in collaborating with me on this. I am going to ask their mentor to ensure that they remain happy to participate and work with him to ensure that it does not increase their workload. I am exploring ways of developing ways of building students' expert thinking that move away from teaching sources as purely an "exam skill" and are intended to help them better understand how historians make use of source material in real historical investigations to test interpretations and deepen our understanding of the past.

By participating in the research, the school would be contributing to a project that will develop our practice in developing students' source skills, which has for some time been identified as a pedagogical weakness of the history department. The research will pilot a model for source investigations using access to online archives via the Chromebooks and, if successful, will support a review of how students engage with source material in Key Stage 5 and could support review and development of teaching lower down the school as well.

I hope to conduct this research between February 2019 and June 2019. Data will be gathered from the normal course of teaching including students' written work and assessment grades. Students involved in the lessons and whose work will be reviewed will be our current A-level classes. In addition, all students will be asked to complete a (voluntary) questionnaire following the lessons and a volunteer sample of students will be interviewed about the experience. All student will have the opportunity to participate in the interviews, although they will be conducted out of lesson time, so none will be compelled to participate. Should no students volunteer, the questionnaire data and

content analysis of the students' written work will drive the data analysis. The teachers responsible for delivering the lessons will also be interviewed about their experience and invited to jointly plan the lessons and then evaluate and refine them.

Oxford University has strict ethical procedures on conducting ethical research, consistent with current British Educational Research Association guidelines. The University also recognises, however, that my study is a piece of practitioner research, and that schools already operate with the highest ethical standards. Therefore only your formal consent as headteacher is necessary, and not that of individual parents or staff. Although students will have to participate in the lessons delivered, as with any other lesson planned through the department, students and other teachers will be able to refuse to participate in any other research activities (questionnaires and interviews) at any time. The classroom teachers will always retain ultimate control over whether they are happy to deliver material in their lessons in line with my suggestions.

All participants, including students, teacher and the school, would be made anonymous in all research reports. The original data collected would be kept strictly confidential, available only to my supervisor Dr Burn and me, and only used for academic purposes. Pseudonyms will be used on all stored data rather than students' personal details. It will be kept for three years, in line with university guidelines before being deleted.

If you are happy for me to proceed with this study, please confirm that using the attached reply form. If you have any concerns or need more information about what is involved, please contact me or my supervisor. Further, if you have any questions about this ethics process at any time, please contact the chair of the department's research ethics committee, though: research.office@education.ox.ac.uk

I look forward to hearing from you.

Yours sincerely,

Robin Conway

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