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Governing by numbers: Local effects on students' experiences of writing

Abstract

The global neoliberal context and the emergence of new forms of "governance by numbers" is now recognized as a ubiquitous educational phenomenon. In this context, large-scale assessments such as PISA are used to justify marketised ideals of education that rely on comparison by numbers. In Australia, one of the key arguments for large scale standardised testing is that it increases transparency and provides parents and policy makers with important data; and that it ultimately drives student achievement. Although standardised assessments purport to improve transparency, less attention is given to how the quantification of education changes the nature of teachers' work. This institutional ethnographic study investigated how student achievement data on standardised tests served to reorient the work of teachers in six Australian schools. As educators increased their efforts to "improve their data" these efforts less alternative curriculum and pedagogic possibilities, such as fostering student creativity in the teaching of writing.

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Introduction

The focus of this article is unravelling how the global policy ensemble that Ozga (2009) describes as "governance by numbers" is experienced at the local level by teachers in both primary and secondary settings. Large-scale assessments are increasingly tied to accountability mechanisms, as media and policymakers link standardised data to performance and equity across educational systems. In Australia's case, international assessments such as the Programme for International Student Assessment (PISA) reveal that Australia has a poor record of educational equity; reveal that Australia has a poor record of educational equity; it has been described as a 'high quality-low equity country' (Klenowski 2009: 77). Paradoxically, while large-scale assessment data is intended to "open the classroom to external scrutiny" (Lingard, Thompson and Sellar 2016: 1), therefore making teachers and school leaders accountable for improving student results, little attention is given to unpacking how this global policy phenomenon

is experienced at the school level. In Australia, the introduction of the National Assessment Programme – Literacy and Numeracy (NAPLAN) in 2008, was intended to increase accountability and transparency with the ultimate aim of driving widespread improvement in student achievement. The purpose of this article is to trace how the complex series of texts that require school principals, leaders and teachers to "improve" their NAPLAN data is reorganizing teachers' work and subsequently on students' work in subject English.

The article begins by describing the global rise in large scale testing, and the quantification of education before moving to describe the Australian context in more detail. The second section outlines the method of inquiry used to undertake the research, institutional ethnography. Analysis is presented that uncovers how global and national policy ensembles are leading to a significant restructuring of teachers' work towards the literacy skills tested in NAPLAN. The article concludes with a brief discussion on the effects of these changes on education, including raising concerns around the effects on student creativity in writing when teachers' work is oriented towards large-scale testing regimes.

The global push towards the quantification of education

In the current global neoliberal education policy landscape, the emergence of new forms of "governance by numbers" is now recognized as a ubiquitous educational phenomenon (e.g., Ball 2003; Lingard 2011; Ozga 2009). The global shift from "government to governance" (Rizvi and Lingard 2009: 116) is characterised by the emergence of private managerial practices in public structures, thus displacing the

bureaucratic structures that had previously existed in the public sector (Griffith and Smith 2014). Finnish education activist, Pasi Sahlberg (2011) has described the globalizing of education policy as a "GERM" (Global Education Reform Movement) that has infected education systems around the world, including the United Kingdom, the United States, Australia and Canada. The moves towards standardisation, basic skills literacy and quantification are central to this neoliberal and neoconservative movement.

Non-government institutions such as the Organisation for Economic Cooperation and Development (OECD) have driven this policy ensemble through large scale, standardised assessments such as the Programme for International Student Assessment (PISA) which are used to enable comparison, and to justify marketised ideals of education. PISA's history is relatively recent, having commenced in the year 2000, with 43 education systems participating. Although it has only been implemented on four occasions (2003, 2005, 2009 and 2012), it has not only grown in size but has also become central to education policy, discourse and and research around the world (Lewis 2014). The OECD is increasingly attempting to quantify all aspects of education, and is now trialling various other large scale assessment tools such as The Assessment of Higher Education Learning Outcomes (AHELO), which quantifies post-secondary education.

Similarly, global edu-businesses such as Pearson, that are heavily involved in large scale national and international testing systems including PISA, have interests in quantification, with Pearson having a stated goal of achieving "global education policy consensus" (Lingard and Hogan 2015). These policy ensembles have enabled the

growth of accountability and auditing cultures, as well as the marketization of education, which relies heavily on comparison by numbers. Although international comparisons do not take into account local contexts, they are nevertheless often used at the national level to create shocks and moral panics that enable educational reform.

From global to national: The quantification of Australian education

Naomi Klein's (2008) *The shock doctrine: The rise of disaster capitalism*, outlines the history of neoliberal practices including inducing a state of shock to create opportunities for reforms that frequently involve corporatisation of the public sector. This deliberate move was conceived by economist Milton Friedman and the so-called "Chicago Boys", who wrote that "only a crisis – actual or perceived – produces change" (cited in Klein 2008: 6-7). In Australia, the phenomenon of "PISA-shocks" (Sellar and Lingard 2013) highlight Australia's purportedly poor international ranking to enable reform at the national level. PISA data is often used by policy makers and major Australian newspapers to demonstrate the so-called decline of Australian education. Interestingly, news articles with headlines such as "NAPLAN: NSW '10 to 15 years' behind the world's best" (Smith 2015) often do not make direct reference to PISA, yet describe Australia's international ranking and draw comparisons with countries that have outperformed Australia on PISA to justify Australia's purported declining educational standards.

Media outlets and policy makers frequently make use of PISA data to demonstrate the need for further large scale testing and policy-making by numbers (Shine 2015). When the Australian Government launched its "Education Revolution" policy reform in 2007, the rationale for reform was improving Australia's international ranking and reducing the

"pockets of disadvantage highlighted by PISA data" (Gorur 2013: 214). To do so, the Australian government introduced a national, mandated, large scale testing programme in 2008. The annual assessment programme, known as NAPLAN, is a census style test of all students across the country in Grades 3, 5, 7 and 9 in literacy and numeracy. The domains tested are: spelling, grammar and punctuation, reading, writing and numeracy. The 40-minute writing task requires students to produce a written text using a specified generic structure by responding to a writing "stimulus". Until 2014, all students – from approximately eight to 15 years of age – were provided with the same stimulus prompt.

Individual students do not receive their marked tests, but do receive reports that depict their results using comparisons against students from across the country. These reports are issued some months after the test is conducted in May. Student reports depict the individual student's position against the national average, and their approximate placement in the top, middle or lowest percentages of national student achievement. As well as NAPLAN data being released to individual students and schools, it is also made public via the Australian government website, MySchool which not only publishes schools' results, but also compares school data against national averages, and against so-called "like schools". MySchool went live in January 2010, amidst opposition from teacher unions and educators, but with widespread support from the Australian media (Lingard 2010). News reports continue to indicate that the site is popular amongst parents who are using the data to move their children away from so-called "poor performing" schools (e.g., Lam 2010; Green 2015). These kinds of reports serve as useful examples of how large scale data can be used to manage reform

through moralistic and fear driven language that justifies accountability measures that govern teachers' work.

Although NAPLAN has existed for less than a decade, and despite its purpose being to assess student achievement, NAPLAN data has also been used by all levels of government, from the national government to state governments, for funding and accountability purposes. Combined, these policy ensembles' prioritisation of data has had a significant effect on teachers' work.

Method of inquiry: Institutional ethnography

To research how global and national moves towards comparison and quantification impact on teachers' work, I have employed a qualitative sociological method of inquiry known as institutional ethnography. This is a theoretically informed research approach that aims to make visible and explicate the socially coordinated organisation of people's lives. Institutional ethnography is a form of critical social inquiry that began during the 1970s, originating in the work of Canadian sociologist Dorothy Smith (1987, 1999). As scholars such as Torrance (2008) have pointed out, while quantitative research methods can provide very useful information, rigorous qualitative research is vital if we are to understand how and why things work as they do, it provides valuable insights that may otherwise remain invisible or obscured. The use of a method of inquiry that acknowledges local experiences also provides an opportunity to "speak back to the powerful discourses of accountability" (Yandell and Brady 2016: 45).

The method is a "formal, empirically based [and] scholarly" (Mykhalovskiy and McCoy 2002: 20) research strategy that seeks to uncover how the everyday lives of people are

coordinated by complex power relations that Smith describes as “ruling relations”. Smith (1996) describes this as a form of power that organises society by tying people into a matrix of relations that extend beyond the local, often through the use of texts. While Smith (2005) describes the centrality of “starting with the actualities of people’s lives”, an institutional ethnography is not intended to simply document the experiences of a researched subject, in this case teachers. Rather, it is based on the belief that what occurs locally is organised and coordinated through the activation of texts (e.g., Smith 1996, 2005). Although texts are important, on their own they are static documents, perhaps sitting on a dusty shelf or a website that no-one reads. It is only when a person reads the text and acts on it that a text has power. In understanding how power is organised, Smith has written extensively on the role of texts in modern societies, showing that it is possible to trace sequences of action across institutional paths, and to identify how texts can “unleash” sequences of events and control the everyday lives of workers such as teachers (Smith 2001: 160).

Research data

Following an institutional ethnographic method of inquiry, the research therefore draws on a number of research data sets. These included audio and video recordings of meetings and interviews with principal and school leaders’ from six schools that participated in a large Australian Research Council Linkage project between 2012 and 2015. University researchers also collected data at local sites, for example by interviewing teachers, holding focus groups with students and conducting surveys of teachers, parents and students. Ethnographic work over the three years included informal conversations with teachers, attendance at meetings, classroom observations

and the collection of school documents and teachers' work samples. Finally, a large number of texts such as school, departmental and governmental policies were collected to trace how local doings were "hooked into" (Smith, 1992: 89) wider power relations. The analysis of data therefore required significant textual analysis in order to "map" how things work as they do. Examining existing texts, or what Silverman (2012) calls "naturally occurring data", as well as data that is produced during the research, for example interview transcripts, allows researchers to build up a picture of how local events are hooked up to ruling relations. In so doing, we can begin to understand how the everyday lives of workers such as teachers are coordinated from beyond their local workplaces. In this way we can also understand how the doings at many different local sites can be orchestrated from outside the local in what Smith (e.g., 2005) describes as translocal effects.

Policy cascades enter schools

Beginning with teachers' local experiences, it was clear that a great deal of time was being allocated in various ways to the collection and analysis of NAPLAN data. However, textual analysis demonstrated that teachers' work was textually-coordinated by a complex series of policies that were all oriented towards the common goal of improving NAPLAN data at the school, regional, state and national levels. Ultimately,

the national goal of improving Australia’s ranking on international tests such as PISA flowed into schools via a series of institutional texts that aimed to improve student achievement data.

At the state level, in Queensland, a range of education policies that are oriented towards the goal of improving NAPLAN data cascade down from government policies into the education department and ultimately schools. For example, the government funding policy (2014-15) known as the *Great Results Guarantee* required schools to “guarantee” students’ minimum NAPLAN scores. Because this policy was also tied directly to funding, and again, publically displayed on all school websites, it was extremely high stakes. Between the six schools that participated in the research, this funding was worth in excess of three million Australian dollars over two years.

A range of departmental policies further take up the mandate to improve NAPLAN and put in place performance management measures to do so. For example, the policy *United in our Pursuit of Excellence* provides for differentiated performance management of school principals based largely on NAPLAN results. Because Queensland covers a large geographical area of almost 2 million km^2, many education policies such as the *Great Results Guarantee* are overseen by regions that are headed up by regional directors. In each of the regions where the six research schools were located, regional directors closely monitored school NAPLAN performance, and initiated regional policies and programmes to support the goal of improving NAPLAN data. State level education policies such as *United in our Pursuit of Excellence* linked data to accountability, partly by establishing a model of differentiated supervision for school principals, informed

largely by NAPLAN results (Bloxham 2013). This policy became a key text for regional directors as they closely monitored and managed school principals, who were held accountable for NAPLAN data. As one regional director said, “good enough is not good enough. Improvement is notnegotiable” (p. 115).

As these texts were activated at the regional level, the six school leadership teams in this research reported feeling a great deal of pressure to improve, and to improve fast. Over the course of three years, principals had the opportunity to meet with each other, and regularly discussed the pressure they experienced as regional directors took up policies that were oriented towards NAPLAN improvement. For example, one principal described his region’s “fast boat strategies” in which school principals were directed to mandate pedagogical programmes aimed at achieving rapid improvements in NAPLAN data. A number of the principals reported that departmental interventions, such as regular school visits by regional staff, were aimed at ensuring regional benchmarks were achieved.

In Australia, this kind of management of schools is relatively recent and was shocking for several of the principals involved. Previously, teacher and principal professional judgment was trusted, and educators made decisions based on their own professional knowledge about curriculum and pedagogy using their knowledge of students and the local school situation. The idea that their work was now coordinated by numbers rather than students and curriculum was worrying. As principals talked it was clear that the *United in Our Pursuit of Excellence* strategy to differentiate supervision of schools based on NAPLAN results was being experienced at the local level. One principal

described his experience when school NAPLAN results declined in 2013, and he was no longer a "free" principal:

> We [have a goal to] improve NAPLAN outcomes. So if you've got [above the national mean]… in NAPLAN, then you are free. You are what they call a "free principal"…. If you're… less than that…. Well then you're supervised with different levels of supervision….

Principals were well aware that their own jobs were on the line, and also reported that their Regional Directors' contracts were tied to NAPLAN improvement. Unsurprisingly, one thing that the principals agreed on – even those at schools that performed well on NAPLAN – was that NAPLAN was the "only game in town". In other words, the cascade of policies into their schools via regional offices meant that their leadership (and that of their regional supervisors) was now focused squarely on improving NAPLANdata. The six principals responded by mandating policies at the school level that would deliver "fast boat" improvements. These responses included mandating the collection of additional literacy data that measured the same kinds of literacy skills tested on NAPLAN (such as spelling, reading and grammar). The principals also mandated curriculum, pedagogy and assessment changes in which explicit teaching of literacy and numeracy tested on NAPLAN was a focus. Many of these decisions were tied to regional programmes of improvement. These were sometimes known as "high yield" strategies, that were intended to bring about quick improvements to school NAPLAN data. These included requiring teachers to undertake practices such as spending a set amount of time on "NAPLAN style questions" in every lesson, changing curriculum to

ensure a strong focus on NAPLAN content and ensuring assessment tested NAPLAN content.

The reorganisation of teachers' work and student writing

The mushrooming of new "institutional technologies" (Griffith and André-Bechely 2008) that produce large scale standardised, numeric data rely on frontline workers such as teachers to sustain them. Unsurprisingly, the cascade of policies that are focused towards NAPLAN improvement had a significant effect on teachers' work. Teachers confirmed that a great deal of curriculum, pedagogy, assessment and homework was now directed towards basic skills literacy. Time in class was being reallocated towards additional testing and data collection, particularly at the primary school. Outside of the classroom, teachers reported spending extensive amounts of time – often on nights and weekends - recording and analyzing data, as well as engaging in new forms of work such as preparing for "data conversations" with the school leadership team.

As an example from just one NAPLAN domain, writing, it was clear that teachers made decisions to alter curriculum choices across a range of subjects to teach the generic structure tested by NAPLAN, persuasive writing. This work occurred in similar ways at a number of schools, which elucidates the operation of translocal effects, achieved via ruling relations. A number of teachers at both schools referred to this work as "doing persuasives". Yandell and Brady (2016) recently described the "PEE (point, evidence, explanation) paragraph" as the "almost ubiquitous building blocks of literary critical essays in English schools" (p. 48). In Australia, the similarly ubiquitous "PEEL (point, evidence, explanation, link) paragraph" (was used by many teachers as the building

block for teaching persuasive writing. This work began from Grade 2, when students are 7 years old. The emphasis on teaching the persuasive structure led one of the secondary school teachers to note that after 6 years of "doing persuasives", students found it very difficult to write using any other generic structure. In her words, students are "*trying to persuade you every step of the way".* As a side note, in preparing this manuscript, I asked a trusted friend who is a teacher to proof read it for me. Reading one of the teachers' comments that, "And so [I say to my class] 'oh let's do a bit more persuasive…'" my friend exclaimed, "Oh no! I say that same thing to my class!"

In 2013, a national Senate Inquiry into the effectiveness of NAPLAN found that excessive test preparation was curbing creativity, and that "some school children are spending a disproportionate amount of time learning how to master persuasive writing pieces" (p. 8). In response to claims around excessive preparation for the NAPLAN writing task, from 2014 onwards schools were not advised of the generic structure students would be required to produce. Instead, they were informed that the written task would require students to write either a narrative or a persuasive text (ACARA 2014).

Somewhat coincidentally, at the end of 2014, the university research team held focus groups with students from one of the schools that were part of this research where students raised the issue of the teaching of writing that was focused around these generic structures. Although the focus groups were held to ascertain (among other things) if students believed that they were provided with regular opportunities to demonstrate creativity, the issue of teaching that was focused around the demands of

standardised assessment was raised by students themselves. Rather than describe the arts programme (as we had anticipated), a number of students said that creative opportunities were limited by the repetitive teaching of creative writing over the year. One said that:

> … with narratives, sometimes we don't want to write them, but it's like… you have to write them. Which is good, because I guess it is an opportunity to show our creativity, but… it is like a disadvantage too… because we do them… every week. And then we have to write a whole new one! It's hard to be creative like that….

The students' responses were particularly striking given that the school has attempted to resist at least some of the pressure to standardise and limit curricular and pedagogic choices by including creativity and the arts as part of its strategic focus. Nevertheless, the teaching and assessment focus on the technicalities of writing using a particular generic style meant that creativity was now difficult for students. As another student said, "it [the technical approach to teaching creative writing] takes the fun out of it". Another added that, "the thing is we have to do this *every* week, and it's like… dude can we just stop for a bit and focus on something else!? Literally! We do it every single day!" Although the students had been asked to comment on creativity, they continued to have a lively discussion about how assessment was indeed restructuring their school weeks. After a few minutes of conversation, one student said:

> I hate Mondays and Tuesdays because all we do is English and math… English and math… And like we have spelling tests on a Monday morning,

> but it’s like, no wonder people don't do well on these pre-tests, because it’s like, ‘get up, wake up and do tests, no matter how bad you’re feeling.’ It's a slap in the face. It’s even if people are sick.

Another student suggested that “actual tests” as well as pre-tests now occurred on Monday mornings, saying, “are they for real?! Like … really?” What was intended to be a conversation around creativity soon became a focus around assessment, and highlighted how students’ perception that teachers were preoccupied with assessment was impacting on their ability to develop creativity in written work. In a report to the Australian Senate’s inquiry into the effectiveness of NAPLAN (2014) an assistant principal similarly attested:

> Children sit many [NAPLAN] practice tests. In some classrooms they write each week in the NAPLAN test condition of 40 minutes with no assistance during this time… (p. 23)

Here an additional concern around the time taken to practice and prepare for testing is subsuming other teaching opportunities, including those that foster student creativity in writing.

Discussion

Time is not an infinite resource. For the teachers in this research, a great deal of time both inside and outside of the classroom is now oriented towards NAPLAN, sometimes through cascades of policies aiming at improving data. This drive to improve numbers may subsume other possibilities including a focus on curriculum that is not tested by

NAPLAN. This narrow view of education limits the time available for students to experience a broad range of educational possibilities. In Australia, this is particularly concerning given the disparities and lack of equity in education. The policies linking funding, performance management and data may place poorer performing schools at greater risk of being organised by numbers. A recent (Luke et al. 2013) review of an Indigenous Education programme in Australian schools (n=775) found that schools with more than 15% Indigenous students and schools in lower socio-economic areas were more likely to report a stronger emphasis on basic skills pedagogies. McCallum's (2016: 82) recent research has corroborated that creativity and self-expression are less likely to be present in schools with working-class children, "while they flourish in schools where they are not present" (p. 82).

The analytic aim of institutional ethnography is to understand how power relations are able to coordinate the work that happens in local sites. Listening to teachers and students in Australia describe how creativity is stifled as teaching becomes oriented towards the demand to "improve data" is eerily similar to the teachers whom McCallum (2016) interviewed in the United Kingdom. For example, one teacher explained that GCSE assessment demands create a "very mechanical" curriculum (p. 79), while another asserted that even in creative writing tasks which should build student creativity, the pedagogic approach is prescriptive with a focus on functional English (p. 79).

Institutional ethnography provides a way of understanding how the current neoliberal global policy landscape in which schools in many countries are governed by numbers

re-orchestrates teachers' work, including what happens in classrooms. As Porter (2012) has described, part of the power of numbers lies in the fact that their production and use tends to be portrayed as "dull and technical" (p. 597). Porter argues that the work of researchers is in revealing the work that is required to produce numbers such as student achievement data. In line with Porter's suggestion, the research presented here indicates that the work of English teachers is "hooked up" (Smith 1992: 89) to wider power relations by large-scale assessment data, with the capacity being a shift towards a more "dull and technical" English curriculum. McCallum (2016) has described a similar situation in the United Kingdom, citing a 2012 Ofsted report, *Moving English Forward,* in which a "lack of inventiveness and risk-taking in the majority of lessons" was observed (p. 76). The aim of this article has been to contribute to understandings about how global policy ensembles that insist on the need for an increasingly quantified education system impact the lives of students and teachers at the local level.

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