

## **Interweaving narratives with CHAT: the institutional culture and ‘voice’**

**Williams, Pampaka, et al**

We can consider pedagogy to be mediated by the institutional culture, the student community and the teachers’ professional identity. In this paper we focus on the institutional component. We suggest that the College “institution” adds its own, particular ‘voice’ to the heteroglossia that constitutes pedagogy. Whilst often *sotto voce*, the voice of the institution, we shall illustrate, can nevertheless have a significantly different role in different institutional contexts. We illustrate with regards to two institutions in the UK with somewhat different market positions, whose Principal’s have different narratives with regard to ‘widening participation’ and pedagogy, and which constrain pedagogies in their different ways. There are clear implications for professional development and even curriculum development. In terms of the theoretical development, we conclude that the ‘voice’ of the institution comes into being historically as a function of the institutions sociocultural, geographic and economic positioning in the market place.

### **Introduction**

The purpose of this paper is to explore ‘pedagogy’ from the point of view of the institutional culture in which it is practised.

We have previously contrasted two particular highly distinct classrooms’ and teachers’ pedagogy, i.e. drawing on the teachers’ and their learners’ accounts, and our own observations of their mathematics classrooms (Williams et al., in press; and Williams in ISCAR symposium VF). We showed that (i) institutional culture, (ii) the mathematics ‘subject’ culture, and (iii) the learners’ community cultures, as well as the teachers’ own professional identities were all prominent features distinguishing these two pedagogies. The purpose of this paper then is to focus more closely on the ‘institutional’ component: how does this culture do its work?

This account will therefore build on the construction of pedagogy in Williams et al. (ibid) but add to the analysis the ‘voice’ of the two institutions, which relies on (a) the voice of the heads of the two institutions, and (ii) what we gathered in our fieldwork about the institutions in our case study work (including many teachers and students interviews). Here we see voice in the CHAT and Bakhtinian sense after Engeström R. and Y. (1996, 1999, etc). By giving voice to the institutions themselves, we can then later (signalled, but not yet accomplished in this paper) revisit the teachers’ and students’ data to ask to what extent this voice is relevant in their construction of ‘pedagogy’.

An important contextual factor in this previous work must be introduced, however; that is the audit culture that we have found to dominate policy and practice in the 6<sup>th</sup> form /Further Education College sector. Indeed, it has come to dominate the management of the public sector in the post-Thatcherite era in the UK, and sociology has been closely analysed in the context of Higher Education in particular (Strathern, 2000; Power, 1997). Briefly, the audit culture requires that educational institutions, programmes and even classroom practices be held to account for their effectiveness – the ‘bottom line’ in the public sector being some measures of outcomes that those

politically responsible can use to justify the allocation/distribution of resources, and those more close to the action can use to account for the success of their work.

In the educational context then this leads to learning outcomes being ‘valued’ in ‘exchange’ terms within a system of accountancy and accountability (Williams, 2007; MKiT website). The scores, grades, ‘UCAS points’ targets, league table positions, etc all come to have this quasi-exchange value, and are seen as being ‘useful’ to the students who use them to demand a valued university entry or job offer, to the teachers and their managers as a proof of their effectiveness and hence their worthiness to receive further funding (in salary increments for the teachers, in institutional funds etc).

A Marxist/Marxian analysis of our theory of the commodification of mathematical knowledge that draws on Lave & McDermot (2002) can be found in Williams (2008; TLRP working paper). Thus, the ‘value’ of education is only realised as surplus value via the enhanced labour power of the workforce when it comes to market. The quasi – market in qualifications within education is therefore essentially false in that it harbours a double contradiction- first, that inherent in the exchange-use value contradiction (which we can perhaps say is Primary). But also second there is the contradiction between the needs of the ‘economy’ (read ruling classes) now – to minimise costs of education and make them ‘efficient’ - and those of the future exploitation of labour power – that demands an edge in a knowledge economy. According to Marx bourgeois ideology/ists typically suppressed such contradictions – and scientific social analysis is required to expose them.

An interesting feature of this audit culture is that it can be found in the voices of many of those engaged in our study: it is especially apparent in the voice of the institution (we won't be funded if ...), it is apparent in the aspirational voices of many students (I need a better grade than that to get into medicine – so...), and it is recognised in teachers' account of their pedagogy (my head will be in the block in September if we don't get the grades...).

We will be particularly interested here then to see how the institutional voices are mediated by audit, and the educational ideology that takes for granted the equation of exchange and use value of knowledge.

### **Background: the two pedagogies in question**

Our research began to construct the two pedagogies in practice from the beginning, before we had even visited the two sites or the teachers as part of the project. Our collective experience of teaching in post-compulsory, pre-university (typically for ages 16-19) mathematics courses has been that it is overwhelmingly ‘traditional’, and over the years we have tried to break this mould with various curriculum initiatives.

We already saw John's class teaching as ‘effective but traditional’ because this is how it was presented by the Principal of his institution, and it was contrasted with other teaching in the College where experimental curricula were being taught in different ways in an attempt to widen participation in mathematics.

In contrast, while searching for access to ‘interesting’ teaching, we were recommended to visit Sally’s class where, although the curriculum was traditional, some kind of progressive methods were practised that might be called ‘connectionist’. The two institutions were also very differently situated: John teaches in a competitive situation in the city where the College depends on their ‘league table of results’ reputation to recruit ‘good’ students. On the other hand Sally’s College does not have to compete, but has a good reputation especially for mathematics. It recruits many students with relatively poor grades and, at least where mathematics is concerned, modifies its curriculum pacing accordingly. Both Colleges hold these two teachers in high regard as effective professionals, each effective in their own context.

Our research construction of the two pedagogies arose from a combination of (i) a statistical methodology (see Pampaka’s paper in this symposium), (ii) analysis of lesson observations (e.g. see Wake- this symposium), and (iii) analysis of the teachers’ and their learners’ own accounts of the classroom experience, and hence of teaching (see Davis et al., this symposium).

***Example of Johns account of his teaching – time pressure being the key.***

John describes his teaching as traditional. “I mean, I do try to bring some interest and explain things if I can, but I do tend to say ‘this is going to be on the exam, its going to be worth x number of marks and that’s why we’re doing it.’ And it’s like that because we are, the main thing is the shortage of time, but we also have a lot of students.”

He himself learnt very much this way and had a number of traditional role models in his own education, and says: “I’ve done a maths degree and I’m not brilliant. I still wouldn’t say I’m a brilliant mathematician, and I think a lot of understanding does actually take years. *And we haven’t got years.* I’ve got twenty six weeks with the lower sixth and maybe a little bit more with the upper sixth. So I teach them the tricks. I mean, we do try to put the understanding, but you know, some of it is going to be you take my word for this, it’s going to work.

Thus, the use-value of maths (its meaningfulness as mathematics, as a powerful tool etc) is suppressed to an extent by the pressure to get the grades in short order, i.e. its exchange value. The more time something takes the less efficient is the process considered to be. It is hard not to bring to mind the labour theory of value, where (labour) time is of the essence (see Williams, 2008, TLRP Working paper). Also, the issue of pace is crucial to the construction of exclusive pedagogies, we Bernstein’s notion of pedagogic code is taken seriously (as it is in Z-College for instance).

Where does this pressure of time come from? One answer is the institutional culture. John again:

“This is what it’s like all the time. Because I feel the pressure on, I’ve got 25, 26 weeks in a year to get through 3 modules and this is how I feel, which is what I’ve got to do. You know, I would not call that teaching, what I did today. I don’t think it is anyway. There might have been one or two good things in there but most of it is just trying to cram things in as fast as possible. And it is a nightmare but this is how it is. You know. Because at the end of the day, what I get judged on now is results. In

September, results. You know, have they got the grades? And if they haven't, my head's on a block."

Clearly the institutional culture is experienced by John as a pressure to get results, fast; and his job depends on it.

John's pedagogy is contrasted very strongly by us in several papers with Sally's (see eg Williams et al., in press with Sense, also Williams et al., ISCAR Farnsworths symposium).

Sally starts slowly and builds up speed through the year, she may not finish the syllabus (which is absolutely anathema to John) and insists that the kind of students they have will not respond to too much pressure: they need to build confidence instead. A key issue for Sally is the development of good social relations between students in the class, building the students confidence to 'have a go', to contribute to the class discussion. She has many strategies for getting her students talking and discussing in groups (games, poster-making etc.) She does have to pay attention to results, of course, but she believes the students will 'get there in the end' if they understand what they are doing.

Sally claims to be supported in this by her institution: and it is clear from the interview data (below) that this is the case.

The result is that we can think of the 'traditional' pedagogy as being 'transmissionist', i.e. orientated towards surface learning (directed at grasping what appears necessary for success in the next test performance) as opposed to something like a 'connectionist' practice (more orientated to deep learning approaches that emphasise understanding). (Marton & ...; Swan etc; and Brown et. al.).

However, the issue of concern here is how these distinct pedagogies receive support from the two institutional cultures, respectively.

### **The institutional cultures and the market**

The two UK College institutions we speak of in this paper both serve a community by offering courses for post-compulsory, so called 'level 3' education that either (i) prepare for university entry and Higher education (usually AS or A levels, but some of the vocational courses also tend to feed HE, especially engineering) and (ii) provide vocational programmes that prepare students for entry to work, or part time vocational study in parallel to work. Our study focussed on the first of these, and especially the AS mathematics, which goes alongside science and technology A levels in preparing for such subjects in university, and sometimes is studied as part of mixed or social science/humanities subjects. The 'experimental AS "Uses of mathematics" programme is mainly used by X-College with less well-prepared students as it is thought more accessible than the 'traditional' AS Mathematics programme; it is not offered by Z-College).

The 'norm' is for students following these academic courses to be 16-18 years old, but many take 3 years rather than 2, and it is increasingly common to have a wider

range of ages in level 3 study (more predominantly in vocational and part time studies though).

Government policy has gradually helped to create a quasi-market in education in this sector: each College is a private corporation that is funded by student numbers/places on courses, and educational innovation and change is driven by market incentives, although practically all the funding involved comes from government, it is mediated by various councils and quangos. The top level of management may be preoccupied with financial concerns and budgets, but there are good marketing reasons why they should not be seen to be so.

The funding that comes with the student depends on marketing and reputation. In some geographic conditions the competition between Colleges is fierce, in others it is less so. Z-College is sited on the edge of and relatively isolated city, and local people tends to go to their local schools, though a few will go to the big Further Education College in the centre of the city. There is some competition at the margins with some rural 1-18 schools, but the staff tell us they feel they are 'winning that one'. Nevertheless the College is very concerned about its statistics and personal and institutional reputations clearly depend upon this. They serve a very deprived community and they feel they get a raw deal in that the statistics are not helpful to Colleges in their social context. The College lives and breathes 'widening participation' because, frankly, they wouldn't have students (in their market position) without it.

The competition in the metropolitan inner city is fierce however, as bus links and rail/underground links allow students to travel across the city. X-College is of this type, and the Principal is proud of their very high standards of 'retention and achievement' statistics; but at the same time they declare they are in favour of opportunity for all and offering open access to their courses.

In each College, it is of course the Principal's role to promote the institution, and this is where most of our data comes from. But there are some corroborative sources in the individual teachers own accounts (and even those of some students). Also, we have the evidence of our own eyes in case study field work. On entry to the Z-College for instance the most prominent advertising involves professionally made posters reporting on their students' successes at A-level and university entry. Vocational studies are almost invisible, and we understand that all students are expected to go to university (even though a minority of these students will have parents who went to university). Most of these posters tell of the lives of these students, and particularly the secondary schools they came from.

Teachers in both Colleges tell us of a lot of promotional activity they are now expected or encouraged to do in their 'feeder' secondary schools: this helps students make the transition but one cannot avoid the impression that it is also marketing: they particularly want good 'academic' students particularly (to help build the academic reputation as these students are, we all assume, easier to educate), though the context of Z-College is such that they take many not well prepared students.

One difference we notice is that although both College mathematics areas have posters and wall decoration, Z-College promotes particularly classwork mathematics

done by the students. There is also a lot of evidence of material designed to inform about mathematics generally (though not of mathematical careers particularly).

Thus, the institutions present themselves as academic institutions, serving their communities, with the interests of their students at the fore. But at the same time they live in a commercial world, where they have to recruit, balance the books, and the students are their unit of resource and even sometimes their ‘customers’ (though the College has a lot of other stake-holders to satisfy, and the cash comes from a quango based on their records and statistics, not from the students directly).

### **The institutional voice: X-College**

The X-College Principal here makes a powerful case for the alignment of the College’s very high standards and its open access policy with the interests of (i) the government/audit culture of performance, and (ii) their duty of care to fulfil the interests of the students to achieve optimal grades.

“We’re top of the Colleges in (this) city .. on the APE and APS (league table of measures of learning outcomes<sup>1</sup>) .. but we don’t select, we let students with 4, 5 C s (C is the ‘critical’ grade that is used by the government in its targets) do four AS (subjects at advanced level). Other institutions have introduced a test, requirements for students to do certain (subjects), like some have to have maths GCSE to do psychology A level, which we don’t. So, yeah, we are not selective.”

Our “value-added is the first in (our city) .. [JSW and what do you put this success down to?]”

Well, a culture of achievement and expectation, very close monitoring, very very close analysis of how students perform, and staff really .. close scrutiny of data and very much a support culture and investment in students. We know our students, tracking them one-to-one, .. So most come from a background, you know, ... so we need to do an awful lot of work with them to make them aspirational and support them. And the staff have teaching and learning at the centre of everything we do’

“It sounds trite but it’s what we do, the students on a course [are expected to pass], otherwise, you know, why would they sit down on a course for one year or two years. And if they’re not passing, why aren’t they passing? If they’re not passing is it because we’re putting students who aren’t able to go on that course, on the course, and therefore they’re [wasting] a year or two years of their life? Or is it because the teaching isn’t right? And we’re always taking a professional judgement on that.”

But as regards the open access policy:

“There is an issue: some of the schools [that students come from] have several maths teachers. .. Those youngsters, put in another school with consistent teaching, could get the A level, be in the higher tier. But, you know, some of them talk to us about schools with six teachers in year 11. So, we think that, we firmly believe that every

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<sup>1</sup> ‘the APS is points per score and the .. APE’s like the grades, your average grade per student, which our students do extremely well on, and the APS is sort of how many points you get for how many A levels you’re doing at ... certain points.’

student should be given the chance if they've got a grade in maths, [whether higher tier] level or not, they're up to it. And our maths department can take a measure over a couple of months of the extent to which they, you know, with a lot of extra support, could perhaps, you know, improve. And that the maths grade doesn't necessarily reflect their potential mathematically, but rather, a set of circumstances in the schools and the home, where they didn't have the same sort of support as maybe, you know, a very stable school in [a middle class area]."

Towards the end of our project the College decided to withdraw the As Use of Maths course from their curriculum provision because the grades attained by students were lower than on other AS courses and retention was also poor. Such performance in these measures was likely to be the case given that the course was designed, and was being used in the college, to be used by those students with relatively low prior attainment in mathematics who would not wish to take the traditional AS mathematics. In relation to the dropping of "Use of maths" programme- it was not sufficiently successful (i) in the interests of the students AND (ii) the funding policy of the state:

"... because when you look at our retention and achievement, what was happening is that students who weren't cracking [the traditional] AS, ... the students who were being put into the Use of Maths, it was seen as sort of like an easier option, I suppose, because you all thought it would do that. And then there [was an emerging] pattern, I looked at some of the data of some of the students, and you could have some of the students grade C getting the traditional maths and grade B not getting the Use of Maths. The drop out from the Use of Maths was phenomenal. Our success rate was below anything the government would accept. It was way below any other success rate in the whole of the college. Our success rate in the college is maybe 90 percent, I think, 80, 90 percent; it might be .., which is phenomenal given the intake. The success rate .. It was, the government, well, the LSC wouldn't fund it actually .."

On the channelling of students into other subjects, and their 'duty of care' to the students:

"Yeah, so they'll have what they need. Our maths department, .. are very skilled at knowing whether students have the potential or not, and what we do is we put [on] additional maths, we'll put supplementary maths, if we've seen it, we'll put supplementary maths in to support them, if we believe they've got any chance. And if they haven't then our department would know and we'd switch them to another AS as soon as possible, so the youngster isn't disadvantaged by doing, you know, a term's work and then dropping the subject. So we switch them to another AS, you know, which hopefully they get a chance of passing.

{Interviewer: And I think we've come across that quite often actually, with students who are weighing up strategically their decisions for UCAS points in terms of, well, I could get an AS in media studies, but if I go for the maths I might fail it, and so, yeah.}

"Yeah, so they have to and we have to, and a duty of care to better ensure they have the profile to be, you know, to get the results. It might well [ be that], it's got a bit of statistics in it and things like that. They might move to a related subject, which isn't

so totally mathematical, not that Use of Maths is, I've been told. But you know, in that sense. So they might, somewhere where they can still work with some sort of number based, you know, sort of ..”

Thus the common sense of the institutional policy and practice involves the disappearance of any contradictions between use value and exchange value, between the interests of the state funding regime of accountability and the interests of the students. The account avoids discussing possible hard cases (when is the cost of ‘investing’ extra support and time into helping students to catch up no longer financially viable, etc.)

However, this is of less interest here than the fact of the alignment of all interests: of course the students want the optimal grades just as does the College, and if this means dropping maths then this is acceptable and within the rhetoric of open access, and extra support for students whose background may have hitherto disadvantaged them.

Additionally, one can see why John's feels under pressure to ensure that the students are carefully monitored, advised to drop the subject if necessary before they waste too much time. Only under very careful monitoring, “of students and of teachers” can the highest standards be maintained.

### **The institutional voice: Z-College**

Z- College also describe their policy on recruitment of students as ‘open access’ – but the pressure on results at Z-College is different: in contrast to X-College their clientele are ‘local’ and highly disadvantaged, but they are not in a competitive environment.

At X-College, we have seen there is a short window of opportunity of about 2 months when students arrive to decide whether the students will ‘make it’ in maths; teachers are expected to counsel those who might not make it to opt out of mathematics and choose a subject where they have a better chance of a grade. But at Z-College the pace of the course is much slower, and Sally tries to ensure that they maintain their confidence in mathematics at the expense of the race to finish the syllabus. She has a different agenda, based on helping their students to develop oracy in mathematics, which is supported by the Principal:

“Well, our key indicator is a value added measure, and we try to use value-added measures to drive up performance both from staff and from students. So, I am not one of those people who believes in targets for targets sake, and by setting targets you magically transform performance but I think it is quite important to have some bench marks to gauge a level of performance and year on year changes and a whole range of indicators. My background is as a physicist actually which means that I don't believe in crude stats or single indicators the way that I always taught that you need a variety of different indicators to point to something being the case. They are no absolutes. So for example crude league tables as published by the DfES might be important for headlines, statistics might be important for media headlines but actually in terms of upping performance it's the value-added measures that really count. At this college we have some of the lowest GCSE profiles of any 6<sup>th</sup> form college around here. In

terms of WP we recruit from all schools which are recognised for, as having representing areas of economic and social disadvantage... serious disadvantage in such an extent that we are deemed to be a WP college. In Y\*\*\* there are two WP colleges - this college and \*\*\* college. In Y\*\*\* there are two 6<sup>th</sup> Form colleges this one and the one in S\*\*\*. So, we've got something like a special mission if you like when it comes to Widening Participation, cause if we don't Widen Participation the students won't be here. They're the only students that are on tap round here. So its an agenda that we pursue with enthusiasm!"

There is a certain view of the local community and the students needs;

"Critical to us is the early stages of education, what's happening through the young pupils upbringing and we know that major, major areas of difficulty are literacy and oracy and one of the things that we try to do is move more and more to our students articulating ideas, expressing themselves, engaging in discussions and developing all sorts of skills and that's why I particularly like a lot of the work that Sally's doing. .. because it's very focused onto students expressing themselves and it's not just in maths it's across the college. If there are barriers or hurdles it tends to be literacy and what we're gonna try and do is break down some of the literacy barriers, and that applies in maths just like anywhere else because sometimes we find that the level of literacy that is required to succeed in tests, examinations, AS, A level... all of this is really quite high and we've got a lot of young people who are coming in with a particularly restricted vocabulary and they operate in a restricted code and they operate in social groups where those codes are... encouraged, they foster that type of communication. Because also we've got quite insular communities here, large council estates which have been... some of the a council estates have been built on the sort of native American versus wagon train, movies... there's a big circle, council houses right on the outside and the road which runs round the outside ... so you can't get in apart from one entry point."

The needs of the students have in part been avoided by previous educational institutions, who have found ways round the league tables to get these students qualified without providing what he sees as the necessary oracy/literacy for A-level progress:

"I think for a lot of youngsters who are disadvantaged through social circumstances, economics...(missing: ) what they do is they come through form school with results that flatter reality ...sometimes what they've got is picked up is a range of what – Im not going to call them peripheral - but other qualifications outside the core of maths/English/science... so we've got very strong participation in the areas of performing arts, media and that's because of the accessibility in the fast routes that secondary schools can provide in GNVQ routes in drama, arts and media studies... we also got very strong interest in sports, you can say the same thing and in health and social care... and you can say the same thing there."

In this College then, there is a different institutional voice that responds to the perceived needs of the student community (which is 'bottom of the league' in terms of results and league tables). Here the narrative of the institution is 'audit' responsive, but their strategy involves addressing the needs of these particular students with

‘oracy and literacy’, and so the ‘connectionist teaching’ developed by Sally is seen as synergetic and given its head.

“Effective.. social activity. It’s got to be. Now, you can socialise at different models. For some of our students it’s quite hard to socialise in the college in the way that we like them to socialise and develop some behaviour patterns that we would like to see. In terms of being a social activity what individuals need to do is first of all reinforce one’s intention or determination to actually be a student and reinforce that vocation, that identity on the student. You know, I am 17 I am not in a model of apprenticeship, I am a student. And it’s really important that this identity is reinforced amongst others. That’s what I am trying to do when I talk to the students to say you know...”excellent. You’ve chosen your career, you are a student”, to give them self respect, pride in a form that they have actually chosen to be a student.”

I don’t think the widening participation context makes it any easier. I think it makes it a lot harder. Because the results, let’s say the OFSTED .. will recognise value added. But it’s never contextualised - the data - in terms of social and economic circumstances. So ...and there is actually good work .. (by the Sutton trust) .. on contextualising performance, well it’s not done for us so it’s quite hard for us and we still get hit with lower bench marks...but I think one of the things that we got as an institution, I hope, ...yeah I do hope that and I think it exists in lots of areas - is that we genuinely share concerns about performance in action, (and that) the philosophy is really simple. If we recognise what needs to be done and we share that idea then nobody is going to criticise everybody else. You can only be criticised if you don’t recognise that there is an issue that needs to be addressed. All that we’ve done is try to work on something. So I think in some ways the context because it’s quite tough and led us into that sort of thinking that we sort it out together and we don’t criticise each other... If Sally’s students are conditioned to articulate ideas and they are going to do and you see that because when they go in they start talking - you think this is wonderful, .. Unfortunately, my experience says (the way they behave is) .. ‘it’s best if you keep your head down, you don’t say to them much cause you are a bit nervous, a bit worried you are trying to hide and disappear.’

Thus the Principal builds on the disadvantage of the institution (regarding the formulation of league tables by policy etc) to foster a community spirit – we are all in this together. The disadvantages of the students are best addressed in his view by Sally’s sociable approach to oracy etc. To acquire a student identity, students need to ‘talk’ mathematics etc. and so, because the market position of the College requires this to be addressed (or they would have no students!) Sally’s pedagogy is to be encouraged.

In use-value terms, then – it seems that the exchange value of the students “value-added” to the College depends on the students needs for oracy etc to be handled. There is an explicit understanding by the principal that their class of students will fail if these special needs are not addressed. It is an interesting turn around in terms of value – for exchange value turns out (as Marx always had it) – depends ultimately on a commodity’s use value; in the end a commodity is consumed, and can have no value without its ultimate use.

Here again the institutional policy is seen to align the needs of the students with the optimal funding strategy of the institution: the possibility of a contradiction between student need and state requirements is eclipsed, but in a different manner. But it is one that leaves some space for Sally to develop her pedagogy in the way she has come to believe is necessary, and a quite different pedagogy from John’s.

## **Conclusion**

In conclusion, we have shown how the culture of the different institutions reflect market positions and economic-geography, and how this may be voiced in perhaps powerful ways that mediate pedagogy in their institutions. Each institution has a voice that addresses a community, but also the teachers and learners therein.

In particular, it seems that the value of the students learning has a bearing on the institutions voice in different institutional contexts. We have developed this notion theoretically elsewhere (Williams, TLRP working paper on labour theory of value, <http://www.lta.education.manchester.ac.uk/TLRP/academicpapers.htm> )

The substance of the story rather than narrative structure of the institution has been our focus, but we have alluded to the way the principals' narrative serves to reconcile what we suggest might be contradictions between the economic interests of the state, or the institute and those of the students. This seems to us evident in both narratives – and perhaps it is inevitable that it should be so. In other papers we have seen a similar rationalisation where John for instance tells us that he would be (or should be) sued by his students if he didn't finish the syllabus, or that he has to appeal to the upcoming test to motivate them to work hard (or tell the students 'this will be on the exam so pay attention' at important moments).

Finally, we do not mean to argue that the institutional voice is the only important one or that it determines pedagogy, but we have seen it is one voice among others that is important in teachers' interview data (only a small sample of this shown in this paper). Elsewhere, we have developed the evidence to suggest that personal experience and professional identity is important in explaining sally and John's contrasting narratives.

## References:

- Bernstein, B. (1996). *Pedagogy, symbolic control and identity*. Taylor & Francis, London;
- Black, L., Davis, P., Hernandez-Martinez, P., Pampaka, M., Wake, G., and Williams, J. (under review). Imagined futures: mediation of the mathematical biography. Paper under review for *Educational Studies in Mathematics*.
- Bruner, J. (1996). *The culture of education*. Cambridge, Massachusetts: Harvard University Press.
- Davis, P., J. Williams, L. Black, P. Hernandez-Martinez, M. Pampaka, G. Wake. (2007). *Students' mathematical identity and its relation to classroom mathematics social practice*. Paper presented at the British Educational Research Association Conference, Institute of Education, London.
- Engestrom, R. (1995), Voice as communicative action. *Mind, Culture and Activity*, 2(3), 192-214.
- Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström, R. Miettinen, & R.-L. Punamäki (Eds.), *Perspectives on activity theory* (pp.19-38). Cambridge: Cambridge University Press.
- Engestrom, Y. (1987). *Learning by expanding: an activity-theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.
- Engestrom, Y. (2003), Conceptualizing transfer: From standard notions to developmental perspectives, In Tuomi-Gröhn, T. and Engeström, Y., (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 19-38). Amsterdam/Oxford: Pergamon.
- Gee, J.P. (1999). *An introduction to discourse analysis: theory and method*. London: Routledge.
- Gee, J.P. (2001). Identity as an analytic lens for research in education. *Review of Research in Education*, 25, 99-126.
- Hernandez-Martinez, P., Black, L., Williams, J., Davis, P., Pampaka, M., & Wake, G. (2008). Mathematics students' aspirations for higher education: class, ethnicity, gender and interpretative repertoires and styles. *Research Papers in Education*,
- Holland, D., & Quinn, N. (1987), *Cultural models in language and thought*. Cambridge: Cambridge University Press.

- Holland, D., Lachicotte, W., Skinner, D., & Cain, C. (1998). *Identity and agency in cultural worlds*. Cambridge: Harvard University Press.
- Kaasila, R. (2007). Using narrative inquiry for investigating the becoming of a mathematics teacher. *ZDM – International Journal of Mathematics Education*, 39(3), 205–213.
- Lave, J. (1996) "Teaching, as learning in practice." *Mind, Culture, and Activity*, 3(3), 149-164.
- Lave, J. and R. McDermott (2002). Estranged learning. *OUTLINES: Critical Social Studies* 1 (2002), pp. 19–48.
- Lave, J. and Wenger, E. (1991). *Situated Learning: legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Leont'ev, A. N. (1978). *Activity, consciousness and personality* (Transl. M.J. Hall). Englewood Cliffs, NJ: Prentice Hall
- Leont'ev, A.N.: 1981, *Primaeval Collective Hunt. Problems of the Development of Mind*. Progress Publishers, Moscow, pp. 210-213.
- Marx, K. "Estranged labour" in Marx, Karl. 1844. (Ed D.J.Struik, 1964). *The Economic and Philosophical Manuscripts of 1844*. New York: International, 1964.
- Pampaka, M., Black, L., Davis, P., Hernandez-Martinez, P., Wake, G. and Williams, J. (2007) *Measuring the 'effectiveness' of Programme and pedagogy on maths disposition and self efficacy measures*. Paper presented at the British Educational Research Association Conference, Institute of Education, London.
- Potter, J. and Wetherell, M. (1987) *Discourse and Social Psychology, beyond attitudes and behaviour*. Sage: London.
- Power, M. (1997) *The Audit Society: Rituals of Verification*. Oxford: Oxford University Press.
- Wake, G., P. Davis, L. Black, P. Hernandez-Martinez, M. Pampaka, J. Williams. (2007). *Pedagogic practices and interweaving narratives in AS Mathematics classrooms*. Paper presented at the British Educational Research Association Conference, Institute of Education, London.
- Williams, J. (2007) *Community, culture, and identity: pedagogy as mediation between teacher's and learner's identity?* Paper presented at the 2nd ScTIG conference, Manchester, UK. URL: <http://www.lta.education.manchester.ac.uk/TLRP/test.htm>
- Williams, J. S., Black, L., Hernandez-Martinez, P., David, P., Hutcheson, G., Nicholson, S., and Wake, G. (2007) *Storying Mathematical Identities with Cultural Models*. Paper presented at the Conference for European Research in Mathematical Education (CERME) Cyprus.
- Williams, J. S., Corbin, B., & Macnamara, O. (2007). Finding inquiry in discourses of audit and reform in Primary schools. *International Journal of Educational Research* (Special Issue, Edited by Williams, J.S., Davis, P. and Black, L.).

In its simplest terms, the narrator is the voice in your book which is not that of any of the characters. The narrator is the person who is communicating directly with the reader. Therefore, novels contain two types of voice: the characters' voices AND the narrator's voice. (Please, this is not true for most non-fiction books. In non-fiction, the narrator's voice is often that of the writer). However, and this is important, the narrator's voice is NOT the author's voice. The narrator is a character who the author controls. The narrator often says things that an author believes to be untrue; that's why it is called fiction. Language exchange websites (we also call them conversation exchange, chat exchange or speaking exchange websites) are a fantastic idea for language learners. You can study a foreign language completely for free AND make friends with native English speakers at the same time! However, once you get started it's almost impossible to stop. It can get quite addictive, especially if you make many new friends who want to talk to you every day! Many of you have asked me whether I know of any good language exchange communities, where you can practice conversing in English with native speakers. The major