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New academics negotiating communities of practice: Learning to swim with the big fish.

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Abstract
This paper explores the use of situated cognition theory to investigate how new academics learn to judge complex student performance in an academic department at a South African university. The analysis revealed the existence of two largely separate communities of practice within the department, one centred on the provision of undergraduate teaching and the other on the production of research. Newcomers follow a range of trajectories in the course of their identity construction as academics and their learning is strongly shaped by their histories and individual experiences of negotiating their way into and across these key communities of practice. Learning to assess student performance in an Honours research paper was found to be integrally linked to the process of gaining entry into the research community of practice with limited opportunity for legitimate peripheral participation given the high stakes context within which assessment decisions are made.

INTRODUCTION
Assessment of student performance in a university context is a high stakes activity with substantial consequences for students, and universities in South Africa are required to ensure that academics “have the requisite competencies and necessary training to undertake assessment in higher education” (Council for Higher Education 2003). This paper arises out of a study into how academics learn to judge complex student performance and is informed by recent literature which emphasises assessment as a social practice involving interpretation and academic judgement rather than as a type of measurement (Gipps 1999; Knight 2002; Shay 2004). The study is in part a response to the suggestion by Gipps (1999) that sociocultural theories which describe learning in terms of apprenticeships and engagement with a community, could provide valuable insights into the process by which academics learn how to make these judgements. The study takes place in the context of important efforts to reverse the racial distortions of apartheid and construct a South African higher education system suitable for a modern democratic nation.

WORKING WITH SITUATED COGNITION THEORY
Situated cognition provides a framework for investigating learning in the workplace (Lave 1996; Lave & Wenger 1991; Wenger 1998). While traditional cognitive theories separate learning from everyday activities and view it primarily as involving the transmission of existing knowledge from teacher to learner, situated cognition theory describes learning as a process of understanding through participation with others in ongoing activity, and knowledge as being distributed amongst the participants in an activity (Lave 1996).

Central to situated cognition theory is the concept of a community of practice defined by the following features:
- mutual engagement connecting participants in a variety of ways and defining membership.
- participation in a joint enterprise, a negotiated way of working together to achieve something.
• a shared repertoire of “routines, words, tools, ways of doing things …which have become part of its practice” (Wenger 1998 p 83).

Several communities of practice might exist alongside one another. They might share physical space and even membership, but as separate communities of practice they would differ in a key aspect and over time boundaries would evolve that would distinguish where participation in one ends and participation in the other begins (Wenger 1998).

Lave and Wenger (1991) define the initial learning phase whereby communities of practice incorporate new members as legitimate peripheral participation. Peripherality refers to the relatively low-risk environment within which the first experience of participation takes place, and legitimacy refers to the recognition of newcomers as potential full members of the community of practice.

As the experience of participation increases so the newcomer’s identity settles into one or other trajectory which links past experiences with future possibilities of membership of the community of practice (Wenger 1998). These include

• Inbound trajectories – where newcomers are on track to become full members;
• Peripheral trajectories – where participation in the community of practice does not necessarily lead to full membership;
• Boundary trajectories – where participation involves maintaining membership across the boundaries of different communities of practice.

Knight and Trowler (2001) argue that Wenger’s criteria for the existence of a community of practice are too vague to be useful in the context of the academic workplace. In their view academics participate in several activity systems and communities of practice emerge when activities get repeated so often that they become a natural part of institutional life. A new academic entering an activity system needs to engage “with the common set of understandings and assumptions held collectively in the community of practice; … [S]ometimes this 'coming to know' is impeded because neither members of the activity system nor the new academic appointee have come to know what they don't know” (p. 31). In particular within departments, ways of thinking about assessment practice develop that are “invisible to the members of those departments but that can seem odd, novel, exciting or just plain wrong to others” (p.48).

They also contend that the process of reaching agreement within a community of practice is more complex than the theory implies and that while acknowledging issues of power at the rhetorical level the theory does not provide a mechanism for incorporating relations of power in understanding the process of learning within communities of practice. Contu and Wilmot (2003) describe situated learning theory as a “radical analysis of learning practices” in which the concept of power is central, but claim that Lave and Wenger have focused on “functionalist and interactionist illustrations of their thinking, in which consensus and continuity are assumed” (p 292). They argue for greater attention to be paid to the role of power in the formation of communities of practice.
RESEARCH DESIGN AND DATA ANALYSIS
This paper draws on a case study of department X which has over twenty permanent academic staff and teaches very large undergraduate classes. University Y is a historically white university in South Africa and department X has previously been staffed almost exclusively by white male lecturers. In recent years several senior academics have left to take up positions in government and the private sector facilitating the appointment of several female and black academic staff at junior levels. One of the challenges of this study has been to capture the experience of these new black and female academic staff within this context. The term ‘black’ is used here to refer to persons who would previously have been classified in South Africa as ‘coloured’, Indian, or African.

Having obtained permission from the head of department I approached individual members of staff and invited them to participate in the study. Eight academics were interviewed, some more than once, including two black and two female academics and two postgraduate students. As someone from outside the department, with expertise in educational development, I collected information through informal discussions, from departmental documents and reports, and from field notes made during and after each visit to the department. In my analysis of the data I have used first and second level coding as outlined in Miles and Huberman (1994).

In this paper I draw on the following subset of interviews:

- Cindy - a black female lecturer in her second year of teaching and a graduate of the department who obtained her Masters qualification overseas.
- Julius - a black male lecturer in his fifth year of teaching and a Masters graduate of the department.
- Henrietta - a white female senior lecturer in her fifth year of teaching who obtained her PhD overseas.
- Alan - a white male senior lecturer and PhD graduate of the department with substantial research experience prior to taking up an academic appointment five years ago.

Names have been changed and the discipline concealed to protect the anonymity of participants. Given the significance of academic discipline within an academic community (Becher 1994; Neumann 2001), this may limit the scope of interpretation available to the reader, however I believe that ethical considerations necessitate this approach.

DEPARTMENT X
According to an internal departmental report, which cannot be fully referenced to protect the identity of participants, significant growth in undergraduate and postgraduate enrolments has resulted in the department introducing “repeat classes using inexperienced lecturers” at an undergraduate level, and making extensive use of contract lecturers to free up senior staff who only teach in the postgraduate programmes. Furthermore, pressure to increase research output has resulted in the department adopting strategies that enable research active members of staff to reduce their teaching load (Departmental report 2004). A chronic shortage of space has left academic staff with no tearoom or place to interact informally, with formal interaction occurring only at committee meetings and quarterly staff meetings.

An analysis of assessment tasks in the department revealed three levels of complexity.
• The basic level: multiple choice and short answer type questions used in the very large 1st and 2nd year undergraduate classes;
• The intermediate level: long answer questions and short essays marked by postgraduate students and academic staff, with answers defined by the course content and textbook or by a memorandum;
• The high level: long essays and reports such as the Honours long project.

At the high level, there is no tradition in department X of developing and using marking criteria. Markers are expected to make judgements based on their knowledge of the discipline and it is at this level that newcomers find it most difficult to know what is required.

FINDINGS
The analysis revealed that the experience of new academics is fundamentally shaped by their interaction with two largely separate communities of practice within the department. The research community of practice (RC) focuses on research and postgraduate teaching, and consists of all senior and some middle-level academics in the department. The undergraduate teaching community of practice (UTC), responsible for the relatively low status undergraduate teaching and assessment at the basic and intermediate level, includes all junior and some middle-level academics and postgraduate tutors. This separation of the older experienced academic staff from the bulk of the teaching at undergraduate level has significant implications for the way in which new academic staff are inducted into the practice of teaching and assessment in the department.

Entering the undergraduate teaching community of practice (UTC)
All new junior academics are assigned to teach undergraduate classes upon arrival. For graduates from the department, entry into the UTC is mediated by their experience of the department as post graduate students. In some cases this experience included engaging in legitimate peripheral practice as tutors marking alongside lecturers. Cindy, a recently appointed lecturer, provides guidelines and support for her tutors and relates how important such support had been for her when she had tutored as a post-graduate in the department.

“I probably got a lot more learning how to mark…from that [support] than in any way since I started to work [as a lecturer].” (Cindy para 139)

Once appointed as a lecturer all structured support disappeared.

“[Y]ou're thrown in the deep end. Nobody kind of tells you what to do, how to do it, you just…have the text book, you have maybe a past lecturer's slides.” (Cindy para 19)

Julius, a graduate of the department and with the head of department as an informal mentor, describes his entry into the undergraduate teaching community.

“I actually found things out on my own, just chatting to people, and by accident (para 92)...When I started to lecture, not once was I taken to a teaching course, or even asked... am I comfortable teaching, or can you manage big classes? ... I just suppose a lot of learning by doing, a lot of risk-taking ... I thought ...there’s no point in trying to make a fuss because everybody seems to be working that way and it seems to be working well for them, and who am I to now to come and try and change that?” (para 219)

For Henrietta being left on her own to “learn by doing” had resulted in a number of problems.

Henrietta: I felt thrown into jobs for which I was not remotely ready, without any sort of
support to help me cope with the crisis as it happened (para 54)

...  
JJ: So how did you find your way?
Henrietta: By making every single mistake in the book. By running into trouble, by having parents yell at Deans. Which is quite an unpleasant way of doing it.
JJ: Where did you find support during that time?
Henrietta: Nowhere. (para 79 – 82)

The common experience of being “thrown in the deep end”, “of learning by doing” and “making every single mistake in the book” reinforces the view amongst new academics that undergraduate teaching is not highly regarded within the department.

“Teaching is seen as a very low priority activity in the department so who do you put there? People you care least about…[or] people who cant say no...Who are they? They’re the new idiots.” (Henrietta para 113)

In response Henrietta took it upon herself to help develop more supportive systems.

“… and in a perverse way that’s why I’m doing all this programme development stuff and why I’m doing collaborative things with [people in higher education development].” (para 54)

With one exception, senior academics in department X, all members of the RC, do not participate in undergraduate teaching. Julius describes this as a natural development in the process of becoming an academic.

“The old school have actually stopped teaching [undergraduates]. Teaching is now concentrated amongst the middle group but in particular the junior staff… I mean that’s standard practice. You start in the varsity, they throw you all the junior...teaching load... As your research output grows ... the less and less teaching you are required to do…That’s the kind of progression.” (Julius para 68)

Henrietta compares her experience with that of recent arrivals in the department and describes a ‘buffer’ that people like her have created for the newer academics.

“There are certainly instances where the new people are as badly off as I felt I was, but… there’s a whole generation of us who’ve been around for 5 years now…at least there’s a bit of a buffer. There is somebody next door that maybe has convened something before if you haven’t or, who knows what the departmental line on x, y and z is.” (para 135)

This ‘buffer’ was of immediate significance to Cindy, who on arrival found an informal mentor in Henrietta, her colleague in the office next door.

“Henrietta’s …been a huge help from … just admin type of stuff to exactly the assessment and the workshops. (para 231-233) … Everybody's just so helpful… Right so marking comes up…you go to somebody that you feel [is] some kind of a mentor, and they kind of look out for you, but it’s all very informal. (para 75)

An informal system of support and mentoring facilitates the newcomer’s entry into the undergraduate teaching community of practice. Cindy voices concerns about the sustainability of this supportive environment in the UTC.

“The reason why I think all of this works it’s because the individuals here are just that committed and that passionate about what they do...there isn’t anything formalised that’s holding [it together] (para 171)... it’s been an absolutely great place to work, everybody’s so nice and so helpful (para 238) …But again it’s people and… the problem is that…people will come and people will go…if things are not institutionally formalised then I think it could become problematic.” (para 266)
Does this system work equally well for everyone, and how easy is it for a newcomer to "go to somebody"? How critical to Cindy’s experience was the presence of another female academic next door who took an interest in helping newcomers? How much did being one of the few black male lecturers influence Julius’ desire not to “make a fuss”?

**Constructing an academic identity**

Wenger (1998) argues that when newcomers join a community their identity construction settles into one or other trajectory related to membership of the community. Julius and Henrietta initially focused their energies on becoming full members of the UTC. Both have reputations as innovative teachers and were instrumental in establishing a key committee that oversees the management of the undergraduate teaching programme. Henrietta sees her role in the UTC as helping to improve the educational process within the department and helping to address the challenges facing higher education in South Africa.

“I’ve stumbled onto what I’m going to be doing for the next five years, and that is experiment … and transforming what we do at this place, because we’re not doing it right. …[In course ABC], and that’s a course that works, the class separates out into three very distinct layers, white South Africans, black South Africans, white foreign students… Even when I get it as right as I possibly can, the black kids are enormously discriminated against by what I do (para 389)... I need to really think carefully about relationships in classrooms ... black students are not getting the education that they should be getting at [University Y].”  (para 393)

While Henrietta’s choices appear to be driven by her personal sense of fulfilment, Julius is looking for formal recognition from colleagues of the value of his contribution.

“My decision to stay will be based on the recognition of the work being done…Up to now …I am happy with the recognition and the personal growth I am experiencing… [but] should I apply for promotion this year and not get it, that’s going to have an implication for my wanting to stay or not.” (para 44)

But formal recognition in the form of promotion is not only about reward for work done, it also forms an important part of gaining access to the research community of practice.

Wenger argues that in the process of identity construction, meanings that newcomers construct need to compete with the various meanings present in the local “economy of meaning” within the community of practice (Wenger 1998). In a powerful display of agency Henrietta asserts her own sense of what needs to be done to improve assessment practice in the UTC.

“I’ve rejected what the department is doing in terms of assessment…and that’s me and my power issues… I am a teacher, that’s my calling in life, so I take the stuff quite seriously, and whether it is because I couldn’t live with anybody else’s structure… or whether it is because I really believe that I can teach in a way that works, I haven’t unpacked. But I’ve walked away from MCQ’s …[and] structured questions… I don’t do it because students don’t learn if that’s the assessment system. And if they don’t learn, I don’t teach, and if I don’t teach I have an identity crisis… I think I’m definitely outside of the box, and many of my colleagues don’t know what the hell I’m on about which is why I don’t network in the department, I network out of the department with people who think in the same way as I do.” (para 386-389)

Julius and Henrietta’s stories highlight how individuals within the same context work to construct their identities in different ways. Henrietta’s participation in the UTC forms an integral part of
her sense of identity. Unlike Julius, who sees himself on a trajectory moving out of the UTC into the RC, Henrietta appears to be on a boundary trajectory looking to include in her identity her continued membership of the UTC along with her future full membership of the RC. She has also built links with communities of practice outside the department. This multi-membership (Wenger 1998) helps her to negotiate her participation within the individual communities of practice.

**Gaining access to the research community of practice**

To be a successful academic in department X one must develop a strong research profile, and become a member of the RC. The data suggests that this process is mediated by factors such as the existence of a mentoring relationship between the newcomer and a member of the RC, and by the alignment of the newcomer’s area of research with existing research groups.

Julius places great emphasis on the mentoring role played by Prof Z, the previous head of department, who had encouraged him to apply for his position.

“Much of my existence here… is owed to him…He took it as his responsibility to… nurture and grow me in that respect, for which I am grateful…I wasn’t yet confident … to open up with any other people except with him. He knew my history and ...was always there to … encourage and to listen if there was any issue….That was helpful because it meant that someone like him who’s senior was confident that what I was doing was right.” (Julius para 411)

He describes how senior academics assist in the research development of new academics and hence their access to the RC. Writing a journal paper forms a key element of the ‘shared repertoire’ within the RC and provides a legitimate ‘boundary object’ for newcomers negotiating their way into the RC.

“I don’t send a paper to a journal before I’ve asked Prof A, B, or C to ‘Please have a read and give me your comments’. ...There’s that mentoring kind of guidance role which performs a very important function in encouraging us younger ones to actually do the publishing, to have the confidence to send a paper to the journal.” (Julius para 80)

In contrast Henrietta rejected the mentor that she felt had been assigned to her upon her arrival but later accepted as informal mentor a senior female academic in a related research area. In her view most of the senior academics, with the exception of Prof Z, did not contribute towards the mentoring of younger staff.

Alan spent several years in the department as a researcher with Prof Z, before taking an appointment as a senior lecturer. As a result he displays a sense of belonging to the RC that is not evident in the other interviewees. He also acknowledges that the RC is where ‘power’ lies in the department.

“I mean the research side, having been doing that for a while, that was not the issue, … being part of … I suppose the power base within the department.” (Alan para 96)

As he developed his teaching confidence Alan’s identity construction followed a boundary trajectory moving from the RC and linking with the UTC. In his view, newcomers are likely to find greater support and encouragement when their research areas are closely aligned with existing research groups in the department. However where new academics are uncertain about
their research area, or where their area of research is marginal to existing research groups, then they struggle to fit into the RC. Cindy’s experience confirms this view.

“The research aspect I struggle a lot more with …unless you have come in quite settled in an area, an expert. If you don’t, then you’re kind of left on your own to find somebody perhaps to work with. That’s something that I find a little bit more difficult to cope with.” (Cindy para 25)

The relationship between the two communities of practice

According to Wenger

“Any community of practice provides a set of models for negotiating trajectories. These ‘paradigmatic’ trajectories …embody the history of the community through the very participation and identities of practitioners…Exposure to this field of paradigmatic trajectories is likely to be the most influential factor shaping the learning of newcomers…newcomers are no fools: once they have access to the practice, they soon find out what counts.” (Wenger 1998 p 156)

It is clear that what is expected in department X, is for new academics to follow a ‘paradigmatic trajectory’ out of the UTC into the RC. Julius has worked out ‘what counts’ and has shaped his path strategically to achieve that goal, acknowledging the power relations that exists between the two communities.

In contrast, Henrietta and Alan have incorporated membership of both communities of practice within their identity but from different directions. Alan as full member of the RC is currently in the seat of power and because of his interest in teaching, and the needs of the department, is seeking to expand to incorporate membership of the UTC. One would expect that his efforts to do so would be relatively uncomplicated given the lack of barriers to membership of the UTC.

On the other hand Henrietta as a full member of the UTC, has to do substantial work to gain access to the RC. She is helped by the fact that she has completed her PhD and is engaged in a significant research project. However she is alone in her particular area of research and cannot draw on a broader research group within the RC.

Henrietta describes some of the practical difficulties of sustaining her multimembership while negotiating her way into the RC. She has arranged for all her teaching to happen in one semester “because my research world and my teaching world are so far apart.” (para 31)

“[In] trying to negotiate a deal where I could pack all my research into one semester and all my teaching into the other, the strongest bargaining chip was to do the job nobody else wants to do. So I … picked a course where I thought I could make a contribution and that nobody else wanted, because that way I can walk in and demand whatever else I need.” (para 198)

Deciding to teach the course that “nobody else wanted” has empowered Henrietta to negotiate a way of dividing her time to be able to sustain membership of both communities.

A central feature of the tension that exists between the two communities of practice derives from the fact that in an effort to increase research output, research active members of staff are helped to reduce their teaching load. The internal report acknowledges that this “could effectively trap junior staff members into high teaching loads (because their research record is poor) thereby ensuring that they never have the time to improve their research record” (Departmental Report p 43-4). This could potentially have serious consequences for junior staff as “promotion depends in large part on research” (p 40). Julius explains how this is perceived by the junior staff.
“When you start off as a young person you’re given a whole lot of teaching that makes it … very difficult to actually get some research off the ground and that’s generating a lot of discontent amongst junior staff members, black and white. It’s nothing to do with race now. It’s about you being young and not being able to have time to actually do research which is what will get you promotion.” (para 72)

Clearly these tensions impact on the identity construction trajectories that academics choose to engage in. Julius is following the “paradigmatic trajectory” out of the UTC and into the RC. But it cannot be assumed that all newcomers will follow that route. Some, like Henrietta and Alan, may choose to sustain identity trajectories with strong aspects of multi-membership.

**A key boundary encounter - assessing the Honours long paper**

Members of the RC take responsibility for teaching and assessment at high levels of complexity. The exception however is that all academic staff, no matter how inexperienced, are required to supervise and assess the Honours long paper from their first year of appointment. Insight into the interface between the two communities of practice is provided by an examination of the process of assessing the Honours long paper, a journal style article which each Honours student is required to produce under supervision of an academic. Each long paper is marked by the student’s supervisor and one other member of staff.

Alan argues that confidence in one’s ability to mark the Honours long paper is closely associated with confidence and experience in research as experience with journal articles determines what one looks for in the paper.

“The process of marking the Honours long paper is like reviewing a journal article. Confidence means a lot and being able to put down what you feel and defend, it is important, especially when the other marker is more senior than you.” (Alan – field notes)

Henrietta recalls that she gave the first Honours paper she ever marked a high mark as she felt she would not have been able to produce work of that quality as an Honours student. However the second marker gave a mark 15% lower than she had. When such differences arise newcomers are confronted with issues of power and authority in the department.

Henrietta: Once there’s more than a ten percentage points gap between marks the writing convenor would walk around chat to people informally see if they can settle the difference …That’s a very scary system, because we then really look for a consensus mark that has nothing to do with anything. ‘OK I give 80% you give 70% shall we settle for 75%?’…We could have just as easily settled for 70. It’s all a power relationship. Are we going to back you or are we going to back me. It’s who shouts the loudest.

JJ: How do the newcomers cope with that sort of set up?
Henrietta: They shut up until they get a feeling for what’s going on.
JJ: Is that what you did?
Henrietta: Ja. [pause] Ja I also picked a couple of fights which I’m now sorry about.

(paragraph 321 – 324)

The relationship between one’s confidence in marking and one’s identity is highlighted in Julius’ first experience of marking a long paper. He remembers worrying that the student he had supervised and marked would fail and that it would reflect badly on him.
“The issue was a sensitive one...I thought that here ... to some extent, my reputation is on line. So I wasn’t willing to confide the problems I was facing with anybody except the HOD who I had a good relationship with anyway. He was probably the only friend I really had at the time.” (Julius para 335)

Julius now feels that he has ‘learnt the ropes’ and would have no problem consulting with other staff around the long paper but recognizes that the process of asking for help is not straightforward. “Any newcomer will struggle ...because things are not really spelt out clearly...There’s no manual given to you...you will learn as you go along. What I learnt very quickly though is that you have to develop a sense of confidence early on to really manage. You can’t keep asking people all the time... On the day you’re really pissing them off by keep on asking ...you just have to make a decision and stick to it ... and actually believe that I have to defend this decision, because ... even in marking the long paper, there’s not a real guideline saying that you have to look for this particular aspect, it’s just about look ... you work it out and you’ll find your way through.” (para 343)

Upon being asked whether being a black member of staff had in any way added to the difficulties he had experienced, Julius replied, “I never really felt that my lack of confidence was related to my being black. I only thought that it was just that I was young and I have a lot to learn...I’m a small fish in a river with big fish in it, and it’s a matter of just growing and learning, in swimming in with the big fish... I think my confidence was mainly shattered by my age amongst my colleagues. ... With time and with more interaction with people I got to understand the processes and the structures much better. “ (para 395)

CONCLUSIONS
Situated cognition theory has helped to illuminate the multidirectional nature of the trajectories of identity construction that characterise new academics within an academic department. This study has shown that the form and direction of these trajectories is strongly shaped by the individual histories and experiences of new academics negotiating their way into and across the communities of practice that they encounter on arrival.

While the situated cognition framework has helped to highlight issues of power, both between new academics and full members of communities of practice and between the communities of practices themselves, it has been less helpful in illuminating the ways in which issues of race, gender or class might impact on the process of socialisation of a new academic at a South African university. In this particular case study the strong position that the research community of practice holds with respect to the undergraduate teaching in the department provides the basis for significant power divisions that on the surface appear to override factors such as race and gender.

However the concept of legitimate peripheral participation, that is, a low risk environment where the work of newcomers is recognized as legitimate, was found to be of limited value in explaining the nature of learning required to be able to make judgements around assessment tasks such as the Honours long paper. Learning in this context is complex and problematic as there is no peripherality in the activity, the stakes are high for both the student and staff as often the reputation of the newcomer is at stake.
The findings of this study have significant implications for the way in which initiatives to provide “the requisite competencies and necessary training to undertake assessment in higher education” are conceptualised. Helping new academics gain access to the ‘shared repertoire’ and ‘tacit knowledge’ necessary to develop the confidence and competence in making these judgments, involves engagement with assessment practices within departmental communities rather than the development of simple competencies.

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