Developing academic literacies through understanding the nature of disciplinary knowledge

Sherran Clarence* and Sioux McKenna Rhodes University, South Africa

Much academic development work that is framed by academic literacies, especially that focused on writing, is concerned with disciplinary conventions and knowledges: conceptual, practical, and procedural. This paper argues, however, that academic literacies work tends to conflate literacy practices with disciplinary knowledge structures, thus obscuring the structures from which these practices emanate. This paper demonstrates how theoretical and analytical tools for conceptualizing disciplinary knowledge structures can connect these with academic literacies development work. Using recent studies that combine academic literacies and theories of knowledge in novel ways, this paper will show that understanding the knowledge structures of different disciplines can enable academic developers to build a stronger body of practice. This will enable academic developers working within disciplinary contexts to more ably speak to the nature of coming to know in higher education.

Keywords: academic development; academic literacies; disciplines; higher education; knowledge; knowers

Introduction

In 2007 Theresa Lillis and Mary Scott published a seminal paper in the field of academic literacies research, arguing that it was a critical field of inquiry, and that it had both a recognizable epistemology – that of literacy as a social practice – and an ideology – that of transformation. This paper has been cited in further debates about the directions in which the field of academic literacies research and practice is moving as it grows and develops. In particular, Cecilia Jacobs (2013) draws on Lillis and Scott's argument to argue for the need to find a shared ontology for academic literacies, to bring what is often a fragmented and segmentalized field of research and practice into closer connection. She postulates that this may enable cumulative building of the knowledge we have generated through both practice and research across local and global contexts.

Jacobs suggests that, to develop a shared ontology, disciplinary knowledge structures and characteristics should be centred in conversations about what being academically 'literate' is in different contexts within universities. This would allow academic literacies development work to be done in and across the disciplines in ways that build an increasingly shared basis for future research and practice. She argues that this is central to how academic literacies practitioners can help both students and lecturers to develop relevant literacies over time (Jacobs, 2013). (Academic literacies practitioners refers here to faculty members who work in academic development or teaching and learning development units, or within faculties, whose particular role is to work with lecturers and students to develop students' academic literacy practices, most specifically for writing in the disciplines.)

^{*} Corresponding author – email: sherranclarence@gmail.com

©Copyright 2017 Clarence and McKenna. This is an Open Access article distributed under the terms of the Creative Commons Attribution Licence, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

This paper agrees with Jacobs that a useful focal point to build the field of academic development would be the disciplinary knowledges with which students and lecturers work. In this paper, disciplinary knowledge is not taken to mean the 'content' of the curriculum in a narrow frame, but rather denotes both what students learn about (the content) and how this content is organized, sequenced, expressed, assessed, and valued (see Bernstein, 2000; Dowling, 1998). Academic development practitioners need to adapt their practice and research to work effectively with students who are creating varied disciplinary texts, reading within specific disciplinary 'canons' or bodies of knowledge, and learning to think using methods that differ from one discipline to another. Broad areas of study, such as the humanities, do share similarities around methods of inquiry, use of terminology, and even text-based genre forms, such as the essay. However, there are differences that stem from how each discipline imagines and constructs itself, how it has developed, and how specialists within it continue its growth and development.

Thus, in order to be effective, academic development work needs to aim towards two sets of goals. The first is more generic, orientating students and lecturers towards literacies as sociohistorically and socioculturally informed practices, shaped by particular sets of values and norms influenced by disciplinary and broader academic contexts within the university (see, for example, Barton and Hamilton, 2005; Gee, 1989; Lillis, 2001). This work would entail sensitizing students to the ways in which literacy practices are never neutral but reflect particular social contexts and values. The other goal – the focus of this paper – would orientate students and lecturers more overtly towards the structure of knowledge in the disciplines from which the norms, values, and textual practices emanate. This work entails a specific focus on what constitutes knowledge and how it is built and critiqued within the discipline. Conflating the structure of disciplinary knowledge with the norms, values, and literacy practices that bring that knowledge to life puts academic literacy development at risk of missing important nuances that impact on how knowledge is created by students, and how it is taught and assessed by lecturers.

Much academic literacy development focuses on developing literacy improvement tools, practices, and approaches for students and lecturers that take into account the context in which they are working. Examples include approaches to reading, unpacking, and understanding written texts, or essay drafting and revision strategies that address particular assessment briefs. But what counts as context, and who determines this? Why are contexts different in terms of their underpinning 'rules' across, or even within, disciplines? In accounting for context, knowledge needs to be seen as an object of study that emerges from socially situated and value-laden contexts such as academic disciplines, but it cannot be reduced to these (Maton and Moore, 2010). Simply put, knowledge itself acts to shape and determine what counts as context, and how one needs to read, write, think, and act within such contexts. Thus, seeing knowledge structures as distinct from, but always connected to, processes of knowing or producing knowledge is an important part of academic literacies development work.

Academic literacies research and practice

Mary Lea and Brian Street (1998) argue that approaches to developing students' academic literacies can be characterized in three ways. The first they term a 'study skills' approach, focused on correcting students' deficient writing, usually using methods to teach essay writing as a kind of formula (for example, the structure: introduction, three to five paragraphs of main text, conclusion, references). The second approach, which subsumes the first, they term 'academic socialization'. In this heuristic frame, students are shown the 'rules of the game' that they are expected to play by, and are not assumed to be deficient if they cannot yet play by them. The third approach is termed 'academic literacies', and further subsumes the two prior approaches.

'Academic literacies' is presented as an ideal to work towards, where literacies in the disciplines are viewed as multiple, contested, and socially constructed according to different, often tacit, agendas.

Academic literacies researchers in South Africa and elsewhere have long lamented the dominance of the 'study skills' and 'academic socialization' approaches to literacy development work in higher education (Boughey and McKenna, 2015; Boughey, 2013; Clarence, 2012; Mitchell, 2010). Many advocate moving towards the more critical and challenging 'academic literacies' approach, but it seems difficult to reach this ideal and sustain this kind of work. In South Africa, for example, there is a range of approaches that are broadly termed 'academic literacy support', from writing-intensive courses where lecturers take on the responsibility for teaching students disciplinary literacies, to embedded 'modules' within courses co-taught by lecturers and academic literacies practitioners, to stand-alone courses that teach students 'study skills' and essay-writing practices that are only loosely connected to the disciplines in which students need to use them. Notable is the ongoing and persistent presence of an autonomous model of literacy development that places the responsibility for becoming appropriately literate primarily on the shoulders of students, many of whom find this a significant challenge (Boughey and McKenna, 2015).

Much academic literacies development work is practically focused on supporting lecturers and students located within disciplinary contexts, yet academic literacies practitioners come into these contexts from outside of the knowledge-making practices. This may mean that they are not intimately acquainted with how these practices work to include or exclude certain kinds of knowledge and knowers. Coming into these contexts from a relatively 'naive' (Rai and Lillis, 2011: 4) outsider position gives academic literacies practitioners a distinct advantage, because it enables them to ask questions that can make the familiar 'strange' (Trowler, 2011) to those on the inside. Asking these questions of lecturers and students can open up spaces for talking about the whys and hows of knowledge- and meaning-making. Such questions can enable a more overt understanding of why students are asked to write in certain ways, and how they can adapt their literacy practices to meet the requirements of their discipline or field of study.

When academic literacies practitioners work with students, especially, they are often talking to them about the 'rules' or conventions of their discipline, and attempting to make these clearer so that students can come to know, and more successfully show that they know (Paxton and Frith, 2013; Bharuthram and McKenna, 2006). The advantage of being in a position to ask naive questions enables academic literacy practitioners to make explicit the socially constructed nature of literacy practices. However, when it comes to getting at the heart of disciplinarity in terms of what, precisely, the underpinning logics and drivers of the disciplines could be, academic literacies practitioners may benefit from drawing on additional tools that get to the actual structure of the knowledge.

If academic literacies development work is located, by necessity or strategy, outside of the discipline, academic literacies practitioners need to acknowledge a lack of full understanding of the knowledge being produced, and what the deeper point of the knowledge-production processes is, even if they work closely with disciplinary lecturers. Working in collaborative ways (Jacobs, 2007), academic literacies practitioners often leave the fine-grained disciplinary knowledge issues to those in the discipline, and focus their efforts on asking questions that help those inside the discipline to see more clearly and critically what their teaching and assessment demands of students. Further, they focus on changing literacy practices and understandings in ways that enable students to learn how to know, and show what they know, more successfully; this is what Lillis and Scott (2007) may term academic literacies' transformative goal.

To accomplish these more critical, challenging, and discipline-focused collaborations, and to enable academic literacies practitioners to 'get' the disciplines they work with in clearer ways,

we need conceptual and analytical tools with which to probe the structure of the knowledge in deeper ways. Why, for example, does philosophy create arguments in *that* particular rhetorical form? Why is political science, which shares commonalities with sociology, not like sociology in particular ways, and more like it in others? We can answer these questions by stating the obvious: these are different disciplines, even though they broadly fit under the umbrella of the humanities and social sciences, and as such they play by different rules. In academic literacies terms, these disciplines use different forms of genre (Swales, 1990), the argumentative essay for example, to shape students' dispositions, or ways of acting, being, and knowing. But how does academic literacy development work account, in detail, for why argumentative essays in political science, philosophy, and sociology enact different forms of meaning-making?

Perhaps there is a bridge we have yet to cross here, between the outside and the inside of the disciplines, one that could help academic literacies development work to move closer to working in a sustained 'academic literacies' frame (Lea and Street, 1998). This bridge would help practitioners to characterize the literacy practices within a discipline in terms of the nature, goals, and 'drivers' of the disciplines and its knowledge structure, and enable movement between generic and specific literacy practices to happen in more nuanced, thoughtful, and critical ways. Academic literacies practitioners would still be asking naive questions with the goal of exposing and exploring literacy practices critically, but would be able to ask more pointed questions that could push lecturers and students further towards critique and challenge of the rules of their game, unpacking their context and its relationship with the literacy practices in more specific, rather than generic ways. Further, if academic literacies practitioners can, in Jenkins's terms: 'work with the vast majority of staff ... to recognize, value and build on staff's concern for their discipline' (Jenkins, 1996: 15), perhaps the power differentials and marginalization of academic literacy development work can be further disrupted and lessened.

Building a bridge

There are many theoretical approaches that can enable a firmer focus on the structure of knowledge itself. One set of theoretical and practice-oriented tools with which we can build the bridge is Legitimation Code Theory (LCT). Developed by Karl Maton, this 'practical theory' is a conceptual and analytical 'toolkit' (Maton, 2014: 15) that subsumes and extends parts of the work of both Basil Bernstein and Pierre Bourdieu. LCT's principal aim is to explore the underpinning logics of practice in an attempt to understand what drives fields to develop in the way they do, and to aim, with this understanding, to do better in terms of growing fields and their attendant knowledges and practices, both cumulatively and inclusively.

LCT offers five different dimensions, but this paper uses just one, Specialization, to propose a way in which we can build a stronger bridge in academic literacies development practice between an understanding of the socially constructed nature of literacy practices and an understanding of the structure of the knowledge from which they emerge.

Specialization asks a fairly straightforward question of a field: what makes this field, and those within it who count themselves as belonging to it, 'special'? In other words, Specialization examines the underpinning organizing principles of a field that legitimate that field, and the knowers within it. To answer this question, Specialization considers two sets of relations that it argues are present in every field of practice: epistemic relations (ER), which denote relations to the *object* that is being known or the knowledge itself, and social relations (SR), which denote relations to the *subject* of that knowledge, the person or people who are the knowers. All fields of practice will have both epistemic relations to the object of knowledge and social relations to the subject of knowledge, but the strengths of each can vary independently such that a

particular field may have a stronger or weaker focus on knowledge, skills, and processes (ER) and a stronger or weaker focus on the aptitudes, dispositions, and ways of being of its knowers (SR) (Maton, 2014). In simpler terms, there is always knowledge and there are always knowers, but seldom are both equally important in terms of the organizing logics of the field; one is usually elevated in importance over the other, either tacitly or explicitly.

Both the social and epistemic relations can thus be relatively stronger or weaker along a continuum, and they combine to create what are known as specialization codes, which are used to represent the underpinning organizing principles of a discipline. There are four specialization codes: (1) a knowledge code (where what you know is emphasized and legitimated); (2) a knower code (where who you are is emphasized); (3) an elite code (where both are emphasized); and (4) a relativist code (where neither is emphasized). As an example, where there is a stronger emphasis on developing students' technical, procedural, or theoretical knowledge, and a weaker emphasis on developing students' dispositions or attitudes, this would denote stronger epistemic relations (ER+) and weaker social relations (SR-). This represents a knowledge code (ER+, SR-). Physics and law have been shown to be examples of knowledge codes (Conana, 2016; Clarence, 2014). Conversely, where there are stronger social relations (SR+) and relatively weaker epistemic relations (ER-), this discipline would represent a knower code (ER-, SR+), where developing students' ability to think critically, and approach problems with an inquiry-focused and creative disposition, is prized over technical or procedural proficiency. English studies and jazz studies are examples of knower-code disciplines (Christie, 2015; Martin, 2015).

The four codes are represented graphically in LCT terms in a Cartesian plane (see Figure I), to enable researchers to capture the underpinning organizing principles of disciplines topographically; essentially to capture more than a static representation of a discipline as a 'code' or context (for example, political science as a knower code) but also to capture nuances within the discipline between different subdisciplines, areas of study, or modules that shift what counts as legitimate knowledge or knowing throughout a degree programme (see Steyn, 2012 for an example).

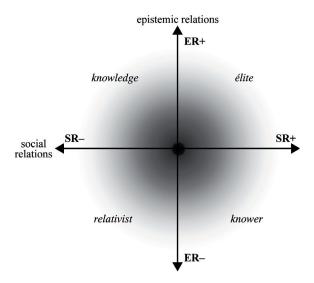


Figure 1: Specialization plane

In order to make sense of how disciplinarity emerges from specific knowledge structures, and thereby shapes the values and norms that influence literacy practices, this paper offers three case studies in which the literacy practices were investigated alongside an analysis of the knowledge structure. In all three studies, the aim of bringing a focus on academic literacies together with a focus on knowledge was to understand not just what the literacy practices were or could be, but why and how the literacy practices had been chosen and developed in these ways, and thus legitimated.

Crossing the bridge: Three case studies

Why is focusing on both knowledge and knowers potentially valuable in terms of moving our academic literacies development work further away from skills and socialization, and closer to critical and 'transformative' (Lillis and Scott, 2007: 12) literacies? Three recent PhD studies completed in South Africa used the Specialization dimension of LCT and an academic literacies lens together to explore aspects of disciplinary teaching and learning: the anecdotes drawn from these studies focus on assessment in the first case, on the link between classroom teaching and curriculum in the second, and on the development of teaching innovations in the third. In all three studies, the analytical tools offered by Specialization enabled a deeper, more nuanced exploration of the underlying organizing principles of the discipline, and surfaced otherwise tacit aspects of the literacy practices. This had useful implications for academic development practice in all three disciplines.

Knowledge and knowers in public management and administration (assessment)

Lück's study (2014) looked at the structure of the knowledge legitimated in the first year of public management and administration (PMA) programmes by analysing study guides, interviews with lecturers, textbooks, and feedback on student assignments. The field of PMA is characterized by ongoing tensions around the desirable focus of the programme, and concerns about a 'theoretical vacuum' (Masemurule, 2005; Gildenhuys, 2004, both in Lück, 2014). PMA professionals are deemed to have a particular role to play in South Africa's young democracy in mediating between the policies of the state and the experiences of the public; in other words, what they need is a particular kind of disposition or way of working in this field.

However, Lück's analysis found that the practices legitimated in the programme were not directed towards developing the requisite practices and dispositions. While there was much mention in her data of workplace demeanour and behaviour, and students were informed that 'the public official has to be reasonable, balanced, honest, respectful, accountable, accurate and passionate' (Lück, 2014: 246), Lück found that guidelines in this regard 'were linked to functions and processes rather than particular dispositions and were presented in a fairly generic manner' (Lück, 2014: 246). That is, students were told of these attributes and expected to be able to list them, but not inducted into their practice and development through more relevant forms of assessment and learning.

Lück's study identified that the organizing principles underpinning the curricula involved a focus on facts and skills rather than on the development of a disposition, as would be the case if the basis of specialization was primarily on the ideologies particular to the field. That is, she identified that the PMA curricula had relations to knowledge as the primary means of legitimation, whereas the profession was calling for stronger development of students' dispositions, or relations to knowers.

Furthermore, her study raised the concern that 'The form that this specialised knowledge took was primarily low-level procedural knowledge of skills, processes and functions ... There was very little evidence of higher order conceptual and theoretical knowledge being valued' (Lück, 2014: 241). Even where disciplinary terminology was used in textbooks or called for in student writing, the underpinning concepts were fairly commonplace rather than theoretically strong. This meant that the students were unable to construct increasingly sophisticated or complex analyses of problems within their field of study. Put another way, the focus of the curriculum is on procedural knowledge and competence, when what the field of practice requires is graduates who have a deeper grasp of the principled knowledge that informs professional practice.

Lück's analysis of the literacy practices that students needed to use to demonstrate success in the PMA programmes indicated that 'Students were expected to show understanding of knowledge through paraphrasing and retelling ... Evidence from marked student assessments showed that mastery of technical features, rather than argumentation, was the focus' (Lück, 2014: 241). Yet, in examining the knowledge structure of PMA, as indicated in the requirements of professional practice, Lück's findings suggest that academic development initiatives might be more usefully directed at working with lecturers to deepen their own theoretical engagement, to encourage them to become knowledge producers themselves through active research projects, and to develop critical curriculum development capacities.

For Lück, this was a social justice issue because even where the literacy practices expected of students align to the espoused curriculum, if 'the required knowledges are at lower levels and involve retelling and if surface technical features are valued' (Lück, 2014: 248), the students are not being given access to powerful knowledge within this context and the underpinning principles by which it is made. Thus, in this case, a focus on the structure of the knowledge itself showed a mismatch between what is valued in assessments and feedback in the curriculum on the one hand and what is truly valued in terms of the underpinning principles of the profession on the other. This mismatch, and this deeper understanding of the context in which students will one day work, could now be more clearly addressed by both lecturers and academic literacy practitioners in future collaborations.

Knowledge and knowers in political science (curriculum with classroom teaching)

Clarence's (2014) study explored approaches to classroom teaching, or pedagogy, in law and political science; the latter is focused on here. The study was concerned with whether and how lecturers were aligning their teaching with their planned curriculum to educate graduates for the kinds of work they needed to be able to do, post-graduation. Political science graduates find work in a range of fields, as the discipline is not educating future professionals within a clearly defined field as is the case with PMA. Rather, political science graduates can become policy analysts, researchers, NGO workers, academics, and so on. Therefore, lecturers are educating students for a wide range of future careers, and this makes connecting the curriculum with teaching and orientations towards the world beyond university a particular kind of challenge. How should lecturers account for their context, and for the kinds of knowledge and knowing that matter within it (Clarence, 2014)?

In political science, students spend a great deal of time reading the work of different theorists, both historical, such as John Locke, and contemporary, such as Achille Mbembe. Students are required to learn what concepts such as power, freedom, democracy, liberalism, and the state mean conceptually and how they can be applied in different ways depending on one's ontology or epistemology (the way one sees the world, and what one claims is true or real on that

basis). Clarence's study found that, within the (fairly standard) political science undergraduate curriculum that she analysed, there was a significant focus on learning what these concepts meant, and how to apply them in analyses of contemporary political events, such as the Marikana Massacre in 2012 in South Africa (Clarence, 2014). On a surface level, it seems as if what is legitimated is learning the theory and concepts well, and the application of these in a particular way to create strong arguments. In other words, it seems at first as if what is emphasized is knowledge, and the processes related to engaging with knowledge in procedural ways.

Clarence's findings show that the teaching tended to focus on ensuring accurate theoretical reading and conceptual learning. Yet, what is more valued by lecturers is students being able to use the concepts and theory to think in more analytical, critical ways about not only political issues or events, but about society's composition and social challenges more broadly (Clarence, 2014). In other words, having knowledge of political theory and concepts is less important than students developing critical, inquiring dispositions and a consciousness about, and interest in, political and social issues. Political science graduates are deemed successful if they can select relevant theory or concepts they have learned, such as power, to puzzle out aspects of an issue – for example, the war in Syria – and then construct and defend a strong argument related to advancing their thinking about it. Simply knowing what power is and all the ways in which theorists have defined and used it is unhelpful, and not recognized as legitimate learning. While the focus may be on theory, conceptual learning, and reading the 'canon', this is all in the service of developing particular kinds of knowers.

This study combined an academic literacies approach – looking at the value-laden and situated nature of literacy practices in political science – and LCT Specialization – looking at what is legitimated in assessment and curriculum. This showed lecturers that their aim was, in fact, less focused on students learning, and writing essays on, canonical texts, and more focused on students learning to use the texts to develop the thinking, writing, and argumentation ability that the discipline values. This research can enable a shift, so that lecturers cultivate a more conscious orientation towards what they regard as legitimate knowledge and knowing through their teaching, and the ways in which they unpack and model literacy practices. This insight can also influence the ways in which they offer students feedback on oral and written responses to questions and problems.

Knowledge and knowers in dental technology (teaching innovations)

In her study of dental technology teaching, Vahed (2014) considered the ways in which the use of educational games enabled epistemological access for first-generation learners. Dental technicians require adept practical facilities in order to construct dentures, inlays, bridges, braces, and the like. To this requirement of practical expertise is added an in-depth understanding of oral anatomy and physiology, and tooth morphology. Vahed et al. (2014) argue that a key characteristic of dental technology is that it has both 'theoretical (or know-why) and practical (or know-how) knowledge' (Vahed et al., 2014: 123). Vahed et al.'s study responded to a concern that students were often unable to bring together their theoretical and practical knowledge to respond to problems set out in the classroom.

Drawing on literature that espoused educational games as a means of making pedagogy more student-centred and of enabling students to connect theory with practice (Oblinger, 2004; da Rosa et al., 2006; Wideman et al., 2007, all in Vahed, 2014), Vahed developed two interactive games to be used in class by her students, the tooth morphology board game and the oral anatomy multimedia game.

Vahed analysed qualitative and quantitative data regarding the implementation of these games to consider the extent to which this innovative pedagogy was enabling students to acquire the literacy practices required for success in the dental technology programme. In her analysis of observations, students' focus group discussions about the games, and evaluation surveys completed by the students, Vahed was able to conclude that the games had indeed increased epistemological access and assisted students in making links between the knowledges of different subjects.

It was her analysis of the structure of knowledge in the dental technology curriculum, and that of the games, that provided particular insights into how the games were working and what aspects needed further development. Using Specialization from LCT, Vahed analysed the dental technology course guides and established that what was legitimated was the acquisition of hierarchical knowledge in the form of stronger epistemic relations. There was very little in the curriculum regarding the development of a specific disposition. The games did enable certain social relations to come to the fore, such as valuing collaboration and the sharing of information in the teams playing the tooth morphology board game, but the predominant focus of the games was the ability to rapidly select and apply knowledge and skills. Vahed argues that while games have the ability to engage students deeply given their fun and interactive nature, it is only through the careful alignment of the knowledge structures of the game to the knowledge structures of the curriculum that they can enable epistemological access and the development of relevant academic literacies.

In all three cases, the complementary analysis using academic literacies (following Lea and Street (1998) and Lillis and Scott (2007)) and Specialization from LCT gave these researchers stronger tools with which to dig beneath a surface view of literacy practices evidenced in teaching, curriculum, assessment, and materials design. This digging revealed tacit dimensions of the literacy needs and practices that were directly connected to the knowledge structure of the discipline, and what the discipline or field considered legitimate knowledge, and legitimate knowers. This analysis enabled researchers to make these dimensions more explicit and visible, which will have a direct and empowering impact on academic literacy development work, and on lecturers' ability to see their disciplinary practices afresh with a view to making changes where necessary (see Clarence, 2016; Vahed et al., 2014).

Conclusion

This paper has argued that academic literacies development work provides an overt focus on texts as social practices, situated within value-laden, ideologically shaped contexts within higher education and created by students who may or may not find these contexts congruent with prior home and school backgrounds (McKenna, 2004). Bringing a focus on the structure of knowledge to this academic literacies approach sharpens the ability of academic literacies development work to make sense of the ways in which the practices of the academy emerge from the nature of specific disciplines. Connecting the knowledge that students need to engage with, think, read, and write about, with the disciplinary conventions that they need to follow makes these conventions seem less arbitrary.

Jacobs (2013) provided part of the impetus for this paper when she argued that academic literacies development could benefit from a more overt, nuanced way of thinking about and working with disciplinary knowledges. But it is difficult to think about and work with these knowledges in nuanced ways if academic literacy practitioners are located as outsiders in relation to both students and lecturers. Therefore, a bridge is needed between outsiders and insiders that brings together what academic literacies offers in its analysis of literacies as social practices, and

what can be added through theoretical approaches focused on knowledge, such as that explored in the three case studies offered here.

Ultimately, this paper concludes that academic literacies development work within higher education can benefit from engaging in complementary analysis using a practical theory such as LCT because it offers academic literacies development a new avenue for generative thinking and development. Through its conceptual and analytical 'toolkit', the dimension of Specialization explored in this paper provides academic literacies with a richer language for getting at what drives academic disciplines, and what characteristics those working within the disciplines possess that marks them out as legitimate or successful. The value of this for academic literacies development is a deeper and more nuanced understanding of the kinds of literacies that students need to master and the knowledge and knower structures from which these literacy practices emanate. This understanding can then create the means to better connect academic literacies research and practice with lecturers' (and students') concerns for their disciplines, and can build from there.

Notes on the contributors

Sherran Clarence is a postdoctoral researcher in the Centre for Higher Education, Research, Teaching, and Learning at Rhodes University in South Africa. Her research presently focuses on academic staff development in social science education, specifically using aspects of Maton's and Bernstein's work to enhance pedagogic practices. She also contributes to two blogs on academic writing and doctoral study. Her recent work is published in *Teaching in Higher Education*, the *Journal of Education*, and *Assessment and Evaluation in Higher Education*.

Sioux McKenna is the Director of Postgraduate Studies at Rhodes University. She also runs a PhD programme in Higher Education Studies and is the manager of a national initiative, Strengthening Postgraduate Supervision, which supports novice supervisors. Her research interests include the contribution of higher education to the formation of a cohesive and just society and the extent to which our universities serve the public good.

References

- Barton, D., and Hamilton, M. (2005) 'Literacy, reification and the dynamics of social interaction'. In Barton, D., and Tusting, K. (eds) Beyond Communities of Practice: Language power and social context. Cambridge: Cambridge University Press, 14–35.
- Bernstein, B. (2000) *Pedagogy, Symbolic Control and Identity:Theory, research, critique.* Revised edition. Lanham, MD: Rowman and Littlefield.
- Bharuthram, S., and McKenna, S. (2006) 'A writer-respondent intervention as a means of developing academic literacy'. *Teaching in Higher Education*, 11 (4), 495–507.
- Boughey, C. (2013) 'What are we thinking of? A critical overview of approaches to developing academic literacy in South African higher education'. *Journal for Language Teaching*, 47 (2), 25–42.
- Boughey, C., and McKenna, S. (2015) Analysing an audit cycle: A critical realist account. Studies in Higher Education. iFirst DOI: http://dx.doi.org/10.1080/03075079.2015.1072148.
- Christie, F. (2015) 'Secondary school English literary studies: Cultivating a knower code'. In Maton, K., Hood, S., and Shay, S. (eds) *Knowledge-building: Educational studies in Legitimation Code Theory*. London: Routledge, 158–74.
- Clarence, S. (2012) 'Making inter-disciplinary spaces for talk about and change in student writing and literacy development'. *Teaching in Higher Education*, 17 (2), 127–37.
- (2014) 'Enabling cumulative knowledge-building through teaching: A Legitimation Code Theory analysis of pedagogic practice in law and political science'. PhD thesis, Rhodes University, Grahamstown.
- (2016) 'Exploring the nature of disciplinary teaching and learning using Legitimation Code Theory semantics'. Teaching in Higher Education, 21 (2), 123–37.

- Conana, C.H. (2016) 'Using semantic profiling to characterize pedagogical practices and student learning: A case study in two introductory physics courses'. PhD thesis, University of the Western Cape, South Africa.
- Dowling, P. (1998) The Sociology of Mathematics Education: Mathematical myths/pedagogic texts. London: Falmer. Gee, J.P. (1989) 'Literacy, discourse and linguistics: Introduction'. Journal of Education, 171 (1), 5–19.
- Jacobs, C. (2007) 'Towards a critical understanding of the teaching of discipline-specific academic literacies: Making the tacit explicit'. *Journal of Education*, 41, 59–81.
- (2013) 'Academic literacies and the question of knowledge'. *Journal for Language Teaching*, 47 (2), 127–40. Jenkins, A. (1996) 'Discipline-based educational development'. *International Journal for Academic Development*, 1 (1), 50–62.
- Lea, M., and Street, B.V. (1998) 'Student writing in higher education: An academic literacies approach'. Studies in Higher Education, 23 (2), 157–73.
- Lillis, T.M. (2001) Student Writing: Access, regulation, desire. London: Routledge.
- —, and Scott, M. (2007) 'Defining academic literacies research: Issues of epistemology, ideology and strategy'. Journal of Applied Linguistics, 4 (1), 5–32.
- Lück, J. (2014) 'Knowledge and knowing in the public management and public administration programmes at a comprehensive university'. PhD thesis, Rhodes University, Grahamstown.
- Martin, J.L. (2015) 'Musicality and musicianship: Specialization in jazz studies'. In Maton, K., Hood, S., and Shay, S. (eds) Knowledge-building: Educational studies in Legitimation Code Theory. London: Routledge, 193–213.
- Maton, K. (2007) 'Knowledge–knower structures in intellectual and educational fields'. In Christie, F., and Martin, J.R. (eds) Language, Knowledge and Pedagogy: Functional linguistic and sociological perspectives. London: Continuum, 87–108.
- (2014) Knowledge and Knowers: Towards a realist sociology of education. London: Routledge.
- —, and Moore, R. (2010) Social Realism, Knowledge and the Sociology of Education: Coalitions of the mind. London: Routledge.
- McKenna, S. (2004) 'The intersection between academic literacies and student identities'. South African Journal of Higher Education, 18 (3), 269–80.
- Mitchell, S. (2010) 'Now you don't see it; now you do: Writing made visible in the university'. Arts and Humanities in Higher Education, 9 (2), 133–48.
- Paxton, M., and Frith, V. (2013) 'Implications of academic literacies research for knowledge making and curriculum design'. *Higher Education*, 67 (2), 171–82.
- Rai, L., and Lillis, T.M. (2011) 'A case study of a research-based collaboration around writing in social work'. Across the Disciplines, 8 (3), 1–9.
- Steyn, D. (2012) 'Conceptualising design knowledge and its recontextualisation in the studiowork component of a design foundation curriculum'. MA diss., University of Cape Town.
- Swales, J. (1990) Genre Analysis: English in academic and research settings. Cambridge: Cambridge University Press.
- Trowler, P. (2011) 'Researching your own institution'. British Educational Research Association. Online. www. bera.ac.uk/researchers-resources/publications/researching-your-own-institution-higher-education (accessed 27 September 2016).
- Vahed, A. (2014) 'Ensuring the quality of pedagogy through games in dental technology at a selected University of Technology'. PhD thesis, Durban University of Technology, South Africa.
- —, Singh, S., and McKenna, S. (2014) 'Examining the quality of pedagogy through a tooth morphology board game'. European Conference on Games Based Learning, 2, 576–85. Reading: Academic Conferences International Limited.





Related articles published in the London Review of Education

In this issue

This paper was published in a special feature on academic literacies, edited by Mary Scott. The other articles in the feature are as follows:

Ávila-Reyes, N. (2017) 'Postsecondary writing studies in Hispanic Latin America: Intertextual dynamics and intellectual influence'. London Review of Education, 15 (1), 21–37.

Blommaert, J., and Horner, B. (2017) 'An epistolary interaction: Horner and Blommaert on academic literacies, mobility, and diversity'. *London Review of Education*, 15 (1), 2–20.

Clarence, S., and McKenna, S. (2017) 'Developing academic literacies through understanding the nature of disciplinary knowledge'. *London Review of Education*, 15 (1), 38–49.

Harvey, S., and Stocks, P. (2017) 'When arts meets enterprise: Transdisciplinarity, student identities, and EAP'. London Review of Education, 15 (1), 50–62.

Huang, C.-W., and Archer, A. (2017) "Academic literacies" as moving beyond writing: Investigating multimodal approaches to academic argument'. London Review of Education, 15 (1), 50–62.

Kaufhold, K. (2017) 'Tracing interacting literacy practices in master's dissertation writing'. London Review of Education, 15 (1), 73–84.

Salter-Dvorak, H. (2017) "How did you find the argument?": Conflicting discourses in a master's dissertation tutorial'. London Review of Education, 15 (1), 85–100.

Scott, M. (2017) 'Academic literacies editorial'. London Review of Education, 15 (1), 1.

Wargo, J.M., and De Costa, P. (2017) 'Tracing academic literacies across contemporary literacy sponsorscapes: Mobilities, ideologies, identities, and technologies'. *London Review of Education*, 15 (1), 101–14.