

Literacy and Employment Annotated Bibliography

August 6, 2004

15- Castleton, G. (2002). Workplace literacy as a contested site of educational activity. *Journal of Adolescent & Adult Literacy*, 45(7), 556-567.

In describing functional literacy and New Work, the author of this paper highlights some of the unchallenged discourse associated with workplace literacy in teaching practices and role definitions. She presents an argument that the workplace is a contested site between the dominant functional literacy discourse and challengers who believe that this discourse does not recognize workers' needs nor understand the realities of literacy as it is required in the workplace. Castleton strongly challenges the emphasis placed on individual identity in assessment of literacy by employers and the rhetoric of New Work discourse that places blame for poor economic performance on workers.

This paper is full of important concepts in the field of workplace literacy, offering both a description of current discursive perspectives in literacy and dialogue surrounding the more political arguments that impact on research and practice in adult literacy.

16- Fueyo, J. M. (1988). Technical literacy versus critical literacy in adult basic education. *Journal of Education*, 170(1), 107- 118.

This paper describes a client-centred critical literacy programme in New York that encourages clients to write their own stories as a way to develop their literacy skills. The author asserts that functional literacy, focusing on skills should not dominate adult literacy as literacy must primarily meet the needs of individuals in striving to achieve participatory democracy.

Although oriented more to the adult literacy practitioner, the paper is useful in the clear description of a critical literacy approach and adds evidence to the debate on the purpose of adult literacy.

17- Hemphill, D. F. (2001). Incorporating postmodernist perspectives into adult education. In V. A. S. Sheared, P. A. Ed. (Ed.), *Making Spaces* (pp. 15-28). Westport, Connecticut & London: Bergin and Garvey.

This chapter offers a broad sweep of the influence of post modernism on the field of adult literacy. It challenges the single definition constructs that are prevalent in this area, stating that by claiming constructs as universal, learners have been marginalized and teachers frustrated by programmes that have not met the needs of learners.

In presenting a clear discussion of postmodernism and its relevance to adult literacy, this chapter is most valuable in offering background understanding to the theoretical perspectives prevalent in adult literacy.

18- Hull, G. (2000). Critical literacy at work. *Journal of Adolescent & Adult Literacy*, 43(7), 648 - 652.

This paper describes an analysis of work events in a Silicon Valley factory where workers were asked to present information to management. Excerpts from transcripts of some of the meeting are included in the article which concentrates on one worker in particular, demonstrating how he used literacy to create a social identity for himself in this work environment. By offering sufficient scope for worker critical appraisal of the organization, Hull asserts that in this case, both the worker and the company could benefit from suggested improvements.

By being research oriented, this paper is useful in demonstrating the nature of workplace literacy analysis.

19- Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research*, 71(4), 575-611.

This paper examines the major theoretical traditions that have influenced out-of-school literacy research; ethnography of communication, activity theory, and New Literacy Studies. The work of key researchers in the field of adult literacy such as Vygotsky, Scribner and Coles, Gee, Barton and Hamilton are all described and for this reason this paper is an important one in providing a clear description of research history and constructs currently impacting on the field.

The move from cognitive-based theories to the discursive, context-situated approach of New Literacy Studies is described thoroughly in this paper.

20- Hull, G. A. (1999). What's in a label?: Complicating notions of the skills-poor worker. *Written Communication*, 16(4), 379-411.

This paper describes a situation in a Silicon Valley factory where a worker made a mistake in labelling a computer panel that had come in for modification and as a result the factory lost traceability of the board. Through her analysis of this work event, Hull found out that while the company placed a lot of emphasis on documentation and specific literacy skills required to follow instructions, management were selective in the knowledge shared with workers about the company's functioning. The result was that workers did not have any understanding of the significance of their work for the company.

The importance of this research is in highlighting the role of literacy skills in an organization and in documenting literacy practices from both the workers' perspectives and management. The particular incident represents opposing sides of the theoretical approaches to adult literacy – one that looks at skills as being sufficient and the other asserting that workplace literacy only makes sense if it is fully situated in a work context.

21- Jones, H. M. F., & Marriott, S. (1995). Adult literacy in England, 1974-45: Why did it take so long to get 'on the move'? *History of Education*, 24(4), 337 -352.

This paper offers a clear description of the history of adult education in Britain since World War 2 with particularly pertinent descriptions of attitudes toward the prevalence of adult illiteracy, the responsibility for adult illiteracy and practices to address the problem. The role the army played in addressing adult education needs was noted prior to the change in awareness and the change in awareness that lead to more government and local body initiatives in addressing adult literacy needs.

This paper is valuable in providing insights into the perceptions surrounding adult literacy as an individual deficit and to recognize the dramatic changes in thinking surrounding research and practices in the field of adult literacy that have occurred in the latter stages of the 20th century.

22- Kazemek, F. E. (1991). 'In ignorance to view a small portion and think that all': The false promise of job literacy. *Journal of Education*, 173(1), 51- 64.

Challenging the view that a functional literacy approach is too restrictive for participants in a democratic society, this paper offers a useful discussion of the politics of adult literacy. Literacy is clearly identified as an issue of power and the author is firm in asserting that functional literacy is unhealthy not only for learners but for nations. The paper presents the view that a new metaphor for adult literacy is required, one that centres on adults' stories and storytelling as this is a distinctively different way of thinking that extends learners beyond learning content to narrative expression which gives recognition to the way we shape our worlds.

The views asserted by the author offer a valuable insight into the level of debate about the purpose of adult literacy. The challenge is directed to the role of learners prescribed by workplace requirements and favours a role of adult literacy as an empowering tool for democracy and personal well being.

23 - Scholtz, S., & Prinsloo, M. (2001). New workplaces, new literacies, new identities. *Journal of Adolescent & Adult Literacy*, 44(8), 7-10.

Describing a piece of research in a South African factory, this paper illustrates the practice of literacy in various roles and functions within the factory operations. It describes a factory where the daily activities have become more text dependent as a result of restructuring, but most of these literacy tasks are checklist skills which are clustered to a few workers. The paper concluded that many workers were excluded and disempowered by new practices rather than included in team-based activities.

The paper presents a clear, concise interpretation of literacy practices in a factory, based on a piece of research. By including transcripts of comments made by selected workers, their perspective is clearly conveyed.

24 - Searle, J. (2002). Situated literacies at work. *International Journal of Educational Research*, 37(1), 17-28.

This paper presents findings from a study that examined the literacy practices of workers in a range of hospitality sites in Australia. The aim was to investigate how language was used for a range of purposes. Taking a discursive view of the research in these sites, specific instances of context-related literacy are described. The conclusion is that while training may focus on generic sets of skills, the literacies used in the workplace are highly specialized, multi-skilled, contextualized to a high level and extend beyond generic skills.

The importance of this paper is in demonstrating the complex nature of workplace literacy that uses generic skills with social practices in complex, specialised, work-situated ways and in again, raising the issue of the purpose of work-based literacy and the importance of staff being socialised into the literacies of a workplace.

25 - Stephens, K. (2000). A critical discussion of the 'New Literacy Studies'. *British Journal of Educational Studies*, 48(1), 10-23.

In this theory-oriented paper, Stephens discusses some of the central ideas that have shaped adult literacy research and, in doing so, offers a clear account of the work of Scribner and Cole, and then focuses work of Gee in New Literacy Studies. The stance taken is that within the framework of adult literacy practices, the contribution that a linguistic model can make needs to be acknowledged along with the recognition that a social constructivist model will require less prescription of roles and skills.

Without reference to a specific research project, this paper is full and often theoretical in its discussion. It offers an important understanding of the relationship between a cognitive- linguistic approach to literacy practice and the social-constructivist model.

26 - Walter, P. (1999). Defining literacy and its consequences in the developing world. *International Journal of Lifelong Education*, 18(1), 31-48.

This paper takes a different stance to many others in the field by using Lytle and Wolfe's metaphors of literacy - literacy as skills; literacy as tasks; literacy as practices and literacy as critical reflection. It then takes each of these metaphors and, by reference to other studies, discusses how these central metaphors operate in the field of adult literacy.

The paper's adopted stance, assuming a position from within these metaphors, rather than observing metaphorical perspectives, makes this a valuable paper for generating insights into ways literacy can be understood.

27 - Demetron, G. (1997). Student goals and public outcomes: The contribution of adult literacy education to the public good. *Adult Basic Education*, 7(3), 145-165.

Beginning with reference to Freire and Chisman as examples of contrasting views on the purpose of adult literacy, this paper then progresses into discussion of the motivators that drives participation in adult literacy. Basing discussion around the idea that literacy enables adults to achieve a higher level of inclusiveness in society, the author examines motivation and outcomes of literacy education in terms of participation in society, concluding that increased literacy is a significant intermediary between the individual and social participation. The paper presents a number of accounts of personal outcomes of adult literacy demonstrating this 'middle ground' stance that literacy is a way of expanding personal and social competencies.

Without describing Freire's approach to literacy in depth, this paper nevertheless offers a useful discussion on the outcomes of adult literacy programmes from a

critical Freirian view, and adopts a pragmatic view of literacy as being centred in personal significance.

28 - Willis, E. (1999). From cultural brokers to shared care: The changing position of literacy for Aboriginal health workers in Central Australia. *Studies in Continuing Education*, 21(2), 163-175.

This paper offers a multi-perspective analysis of the role of Aboriginal health workers as they have been positioned in various roles in the health service of Central Australia and explores the expectations on literacy needs in each of these roles. The conclusion is that literacy needs have not been adequately addressed, that conflicting expectations on literacy skills have been inherent in health policy, and that some health service roles fail to place any pressure on workers to attain higher level of literacy by placing them in roles in which their cultural and political knowledge is most highly valued.

Through analysis of the relationship between roles and literacy levels, this paper is valuable in raising awareness of the impact of policy and work role definition on individual literacy expectations and can easily be read as a paper that prompts further research questions in the area of indigenous people and workforce literacy.

29 - Balatti, J., Gargano, L., Goldman, M., Wood, G., & Woodlock, J. (2004). *Improving indigenous completion rates in mainstream TAFE: An action research approach*. Retrieved 08-08-04, from <http://www.ncver.edu.au/publications/1472.html>

This well structured, highly readable document reports the findings of an action research project focused on increasing the understanding of the low completion rates in technical and further education courses (TAFE) among indigenous people in Australia. The report presents a useful literature review on completion and non completion research in higher education, a body of findings with implications for both policy and practice in educational institutes, insights into the practice of action research and descriptions of the research findings in four diverse settings.

The significance of the report in this relatively uncharted ground of adult education and indigenous people is in the balance of practical information presented and the description of the action research model used. The report has a quantity of information that signals the high research potential in this field.

30 - Cavalier, W. (2002). "The three voices of Freire: An exploration of his thought over time". *Religious Education*, 97(3), 254-270.

In examining the applicability of the educator's work to current adult religious teaching, the author of this paper concentrates on two criticisms of Freire's thinking,

that his views are too simplistic and that Freire's views assume a manipulation of oppressed people by educated, exclusive others. In developing his argument, the paper provides a broad understanding of the Freirian view, emphasising its concern for ethical social action, oppression, critical education and hope for humanity.

The value of this paper is in its critical perspective on Freirian thinking, presenting both information on the education model developed by Freire and the positioning of the model in socially oriented causes.

31 - Benseman, J. (1998). An impact assessment of Paulo Freire on New Zealand adult literacy: Some observations. *New Zealand Journal of Adult Learning*, 26(1), 23-31.

While acknowledging that Freire's contribution to the New Zealand adult literacy field has been through the comprehensiveness of his model, the author then asserts that Freire has had little influence on adult literacy practice in New Zealand. In discussing reasons for this limited influence, Benseman suggests that the emphasis on skills training for tutors, the social differences between Brazil, where Freire developed his model, and New Zealand, the limited transferability of his techniques from Spanish to English, political constraints on funding for New Zealand providers and the hesitance to embrace the radicalism of Freire's approach have limited the influence of this model in New Zealand although its appeal to practitioners of Maori literacy is recognized.

The paper gives little opportunity for depth in the discussion or broad description of Freire's model but offers a clearly developed account of the reasons for Freire's limited influence on adult literacy in New Zealand.

32 - Findsen, B. (1998). Freire as an adult educator: An international perspective. *New Zealand Journal of Adult Learning*, 26(1), 9-21.

This brief article examines the influence of Freire's model on the field of international adult education and asserts Freire's emphasis on community, his disruption of established power structures, his radicalism and his focus on engendering hope has made his model applicable in numerous sites throughout the Western world. The author describes three projects in which the Freirian model has been applied and acknowledges the impact of Freire in conceptualising the connection between literacy and social change, and idea which Mezirow developed in his model of transformational learning.

While the paper is limited in its capacity for depth of discussion, its value is in the succinct extrapolation of key elements of Freire's model.

33 - Hughes, C. (2000). Resistant adult learners: A contradiction in feminist terms? *Studies in the Education of Adults*, 32(1), 51-62.

In this strongly conceptual paper, the author examines resistance learners from three post structural theoretical perspectives all of which hinge around the relationship between a position of resistance to knowing and the subject position that the learners does or does not assume. Resistance is discussed as a pedagogy of the unconscious, of the unthought and of critical literacy all of which are intimately linked with identity formation. In concluding, the author discusses the value of resistant learners in challenging the assumed legitimacy of knowledge, in exposing educators' colonizing practices and identifying potential new knowledge connections through counter discourse.

This paper is extremely valuable in its discussion of resistance learners from a theoretical framework, raising numerous questions which could be addressed through research.

34 - Roberts, P. (1998). Beyond pedagogy of the oppressed: Reading Freire holistically. *New Zealand Journal of Adult Learning*, 26(1), 32-55.

This paper presents useful comment on a range of Freire's later writing, complemented by references from other authors on each work. The author asserts that much of Freire's later works have not been critically acknowledged and expresses doubt on the validity of a decontextualised assessment of his works.

While the paper may be of more use for the student of Freire, it nevertheless offers useful comment, challenge and response to his published works.

35 - Edwards, R., & Usher, R. (2001). Lifelong learning: A postmodern condition of education? *Adult Education Quarterly*, 51(4), 273-287.

Opening this paper with a comprehensive discussion of postmodernism and its relationship with adult education, the authors suggest that lifelong learning may be viewed as a metaphor that encompasses the boundlessness of goals and practices prevalent in an education environment which no longer privileges specific outcomes or knowledge as unquestionably worthwhile. The authors proceed to assert that postmodernism positions the worker in the midst of constant uncertainty and questioning and, as such, workers cannot stop learning. The discussion proceeds to focus on adult education as an act of performativity driven to achieve the flexibility needed to adapt to constant change with mastery no longer as a goal. Recognizing that lifelong learning has many significations, the authors move from further discussion of these to suggest focus on the lifelong learning as sign may provide a more useful analysis and suggest lifelong learning may be understood in terms of lifestyle, confessional, vocational and critical practices, concluding positively with the

acknowledgement that in the postmodern condition knowledge expands the vision of our ignorance rather than reduces our uncertainty.

This paper provides a comprehensive discussion of lifelearning in a postmodern environment combining both well supported points of argument but a creative vision of the relationship of adult education in a postmodern society.

36 - Hodkinson, P., Hodkinson, H., Evans, K., Kersh, N., Fuller, A., Unwin, L., et al. (2004). The significance of individual biography in workplace learning. *Studies in the Education of Adults*, 36(1), 6-24.

Recognizing that current theories position learning as a social activity, these authors investigated the relationship between the individual learner and social learning activities, expanding simplistic notions of agency to encounter the more complex relationships involved with workers and their work learning environment. By examining some research in this interface, the authors further their discussion by suggesting the following four aspects of individual biography are most relevant in the interface with work learning environments: workers' prior knowledge; habitus or disposition to work and the way they construct environment; workers' disposition to contributing to the production or reproduction of organizational culture and systems; and workers' belonging to workplace that contributes to their sense of identity.

Significant for its currency and its signalling of a move to examine both the individual and social learning environment, this paper offers useful ideas that may generate directions in future research.

37 - Billett, S. (2002). Critiquing workplace learning discourses: Participation and continuity at work. *Studies in the Education of Adults* 34,(1), 56-67.

This papers challenges assumptions that are shaping discourse on workplace learning, asserting that they are confining the conceptualisation of the learning environment through use of vocabulary and constructs which are inappropriate for the workplace learning relationship. The authors suggest concepts such as 'formal' or 'informal', 'structured' or 'unstructured' do not define or accurately describe the nature of workplace learning. They reject negative definitions and assert that all learning is social. They suggest that a more useful model is one that conceptualises learning as a complex relationship between the individual mind and the social environment and they therefore propose that a participatory model can more accurately reflect this relationship. Workplace learning can then examine the intersections of the transformative opportunities provided in the social environment of work and individual's personal attributes and history linked with the patterns sustaining the continuity between the two.

The paper is significant in its refreshing re-conceptualisation of workplace learning. Continuing with the emerging trend of examining workplace learning as an interface

between individual attributes and social learning environments, by advancing the participation model as a structure for analysis and observation of workplace learning, this paper signals a progressive step in the approach to research.

38 - Bloomer, M., & Hodkinson, P. (2000). Learning careers: Continuity and change in young people's dispositions to learning. *British Educational Research Journal*, 26(5), 583-597.

This paper reports a longitudinal study of English school students from 15-16 years old to 19-20 years of age. The paper begins with a brief overview of four approaches to learning: learning being centred in the well-being of the of the learner; learning being centred in personal cognitive learning styles or in the learners disposition to learning as influenced by social learning situations; learning as an interrelationship between the learner and learning environment; and learning as located in broad social, political and cultural contexts. The authors then proceed to examine learning as a changing aspect of an individual's life embedded in social and economic patterns over time, and report the changes in the decisions, the disposition to learning, values and aspirations in the life of one of the students in their longitudinal study.

Drawing on their study, the authors speculate on whether these changes would be similar for adult learners who return to study. The paper offers both concise findings of the longitudinal study, insights into the dynamic pressures that produce changes in learning plans and reflect on their finding in relation to theory of learning.

39 - Billett, S., & Somerville, M. (2004). Transformations at work: Identity and learning. *Studies in Continuing Education*, 26(2), 309-326.

Basing this paper on research from a variety of workplaces including coalmining, aged care and hairdressing, the authors examine subjectivity, identity and agency as transformation that can occur in workplace learning. Four key propositions are presented that underpin their view of workplace learning: that the individual acts in response to and is acted upon by their social world; that learning identities or subjectivities need not be conceptually separated into actions and learning, they are inseparable; that individuals bring their unique ontogenies to learning experiences; and that changes in the workplace are conceived through an individual's sense of agency. The authors conclude that the concept of intersubjectivity can be challenged in policy and practice, with greater emphasis placed on personal agency, personal knowledge construction and recognition of individual's roles in work, social and cultural transformations.

This is an insightful paper in describing the complex relationships between individuals and workplace learning. It presents the dimensionality of relationships within a conceptual framework that offers research potential, particularly for longitudinal studies.

40 - Hodkinson, P., & Bloomer, M. (2001). Dropping out of further education: Complex causes and simplistic policy assumptions. *Research Papers in Education*, 16(2), 117-140.

Drawing on data from a longitudinal study of 50 young people over a period of three years, this paper examines the reasons a number dropped out of courses. Although much of the data is presented as individual personal accounts with excerpts from interviews, the authors introduce their findings with an outline of the dominant explanations of student dropouts offered in current literature including the sociological perspective; personal characteristics; failings in individual responsibility and lack of adequate educational resources. In revealing the complexity of reasons for individual drop out decisions, the authors note instances where the decisions have been based on economic pressure, perceived deficiencies in the education programme, and issues around the concept of personal capital. The paper concludes that statistics measuring the retention rates of education programmes do not offer an accurate reflection of the quality of the college nor does it reflect a measure of student learning.

This highly accessible paper adds to the understanding of the role of education in the midst of other influences in young peoples' lives. By offering both personal accounts and a framework for understanding these accounts, the paper offers potential for further areas of research.

41 - Billett, S. (2002). Toward a workplace pedagogy: Guidance, participation and engagement. *Adult Education Quarterly*, 53(1), 27- 43.

In this full and carefully constructed paper, the author discusses the nature of learning opportunities in the workplace within a participatory framework, building towards a comprehensive model of workplace pedagogy. The nature of learning opportunities through participation in activity, guidance by 'experts' and transference learning are discussed within the broader issue of the distribution of participation options within a workplace setting and the role of personal agency in accessing and utilising learning opportunities.

The value of this paper is in its integration of significant conceptual strands of research in workplace learning toward a model of workplace pedagogy that reflects the personal variations possible in workplace learning, the influence of work culture on learning opportunities and the recognition of the as a participatory environment for workers.

42 - Farrell, L. (2000). Ways of doing, ways of being: Language education and 'Working' identities. *Language and Education*, 14(1), 18-36.

Opening with theory-based discussion on the discursive processes of identity formation, the author then concentrates this paper on examining the categories of identity formation in texts to reveal the spaces in which workers can act in their identities. Using text analysis, the author examines ways that workers in a fabric manufacturing company create an identity for themselves within the contradictory discourses of the local workplace and international discourse around quality. The paper concludes that, in this example, while new worker identities are socially constructed through workplace discursive dialogue, these identities are based on limited commitment and are negotiated within the struggle of competing discourses rather than a direct colonisation of worker identities by dominant work-based discourse.

This paper offers an extremely interesting analysis of text and discursive identity creation in the workplace. The discussion, centred on the seminal issues of workplace identity, offers clear insights into the mechanics of socially constructed roles in the workplace.

43 - Tusting, K., & Barton, D. (2003). *Models of adult learning*. Retrieved 11-08-04, from http://www.nrdc.org.uk/uploads/documents/doc_2803.pdf

This research review summarizes the literature in three broad models of adult learning: psychology, adult education and learning based in contexts characterized by rapid change. In describing the research in these models, the paper presents a comprehensive coverage of the approaches to adult learning.

An extremely useful document, the review present not only wide coverage of research but a well constructed framework for over viewing the field of adult learning, complemented with succinct summaries of the key findings from the literature.

44 - Gallacher, J., Crossman, B., & Merrill, B. (2002). Learning careers and the social space: Exploring the fragile identities of adult returners in the new further education. *International journal of lifelong education*, 21(6), 493-509.

Using the concept of learning career in a social interactionist perspective, the authors discuss the processes impacting on participation and non-participation in adult education. Based on quantitative findings from existing data sets and qualitative data from focus groups and individual interviews, the authors interpret their findings in terms of two broad types of factors: social relationships and institutional factors. Key concepts such as 'learning career', and 'status passages' are used to describe the process of transformation that learners experience in the creation of their new learning identity.

By offering an understanding based both on research and theoretical interpretation of the factors that impact on participation and nonparticipation, this paper provides both the potential for further research and a model for interpretation of research findings.

45 - Spencer, B. (2001). Changing questions of workplace learning researchers. *New Directions for Adult & Continuing Education*(92), 31-40.

In this paper that surveys key issues in workplace learning, the author contributes to the debate on the function of workplace learning, asserting that workplace education should enhance the quality of work and democratic participation.

The paper offers a useful survey of ideas in the debate over the role of workplace learning.

46 - Billett, S. (2001). Co-Participation: Affordance and engagement at work. *New Directions for Adult & Continuing Education*, 63-72.

This paper adds to the model of workplace learning as being guided learning that is to the key goal of being easily transferable across contexts. The author describes a workplace pedagogy that examines the opportunities for participation that are available to workers, the agency of individual workers and the quality of teaching directed to specific learning outcomes.

This paper offers a valuable perspective on the ideas of the author, presented in more a general discussion, serving as a useful overview of this development in approaches to workplace education.

47- Fenwick, T. (2001). Tides of change: New themes and questions in workplace learning. *New Directions for Adult & Continuing Education*(92), 3-17.

This paper provides an overview of five current themes that research is actively examining in the field of workplace learning: situated learning, culture and context, texts and discourse constructed knowledge, identity and issues of ethics. Key research in each field is discussed as its contribution to the development of concepts within each theme.

Providing both an overview and a details of key research findings, this paper is valuable in its positioning of research into broad identifiable area of focus within workplace learning.

48 - Beckett, D. (2001). Hot action at work: A different understanding of 'Understanding'. *New Directions for Adult & Continuing Education*(92), 73-84.

In examining workplace learning processes, this paper discusses the concept of 'hot action', instances in the workplace when specific decisions are made relying on both knowledge and practical judgments. The authors then progress to challenge the concept of training as a replication of skills and instead view training as an anticipation of skills. They move beyond this to describe an understanding of 'understanding' not as a representational map but in the ability to describe why some action has been taken. In this way then, understanding is a socially situated process. By offering a model that positions learning within the social experiences of workers, the authors then examine implications for workplace learning itself and suggest that learning practices based on Just-In-Time principles provide learners with training that is driven by their need and that reflects the diverse organic qualities of 'hot action' in the workplace.

The value of this paper is in its close analysis of the process of learning itself and in its careful examination of the social situated and socially constructed nature of work action and workplace learning.

49 - Davis, B., & Sumara, D. (2001). Learning communities: Understanding the workplace as a complex system. *New Directions for Adult & Continuing Education*(92), 85-95.

Using the example of a school that underwent major abrupt change in staff, the authors discuss the changes that they observed in terms of complexity theory. Of particular note is the concept of the organization itself being the learner rather than any individual, and the related concept of an organization needing to accommodate disequilibrium in the process of transformation.

While more detailed analysis and discussion would provide clearer avenues of potential research in this innovative perspective, nevertheless the description of this application of complexity theory offers valuable insight into its application in a work environment.

50 - Billett, S. (2001). Learning throughout working life: Interdependencies at work. *Studies in Continuing Education*, 23(1), 19-35.

This paper adds details to the author's participatory model of workplace learning by focusing on the aspects of the work environment that either foster or discourage an individual to participate in work and learning and, in doing so, challenges the policy and cultural assumption that responsibility for vocational currency is based within individuals. Using activity theory, the author lists descriptors for work activities and interdependencies within the work environment both of which provide a frame for a richer understanding of the relationship of the individual and work.

This paper offers a valuable framework for understanding and examining the relationship between individual participation and workplace learning that is relevant from both a policy and research perspective.

51 - Billett, S., & Herson-Tinning, B. (2003). Small business pedagogic practices. *Journal of Vocational Education and Training*, 55(2), 149-167.

Based on recent research, this paper examines learning practices employed by small businesses using the implementation of GST in Australia as an opportunity to explore how small businesses learnt this new system, what variations were evident in approaches, what difficulties arose and what model of learning in small business can be constructed. Examples of the ways businesses learned are discussed and a model with three key components is proposed: the level of connection with the task, the layering of learning activities to increasingly close approximations to the task and business access to resources that contribute to the learning process. The authors

The value of this paper is in its focus on small business workplace learning and in its presentation of a model derived from recent research. As such, it offers potential for further development of the model and research into the key findings presented.