



---

## **Section 4.3** Employment and Informal Education - Informal Learning

**Work and Lifelong Learning Resource Base (WALLRB)**  
Materials for Teaching, Research and Policy Making

Principal Investigator: **David W. Livingstone**

Team Members: **M. Raykov, K. Pollock, F. Antonelli**

---

November, 2006

Centre for the Study of Education and Work

**CSEW·CEET**

Centre d'étude sur l'éducation et le travail



Ontario Institute for Studies in Education of the University of Toronto

---

## **Section 4.3** Employment and Informal Education - Informal Learning

---

1. Ashton, D. N., & Sung, J. (2002). *Supporting workplace learning for high performance working*. Geneva: International Labour Organization.

The objectives of this book are twofold. The first objective is to increase the awareness among governments, employers and unions of the importance of workplace learning as a means of enhancing both work performance and the quality of working life. The second is to explore the ways in which public policy can be used to encourage organizations to make more effective use of the skills of all their employees.

**KEY WORDS:** High Skills Society; Workplace Culture; Workplace Learning; Work Performance; Quality of Working Life; Equity; Employer Employee Relationship; Productivity; Government Role; Theory.

2. Ashton, D. N. (2004). The impact of organisational structure and practices on learning in the workplace. *International Journal of Training and Development*, 8(1), 43–53.

The main thrust of the research effort into workplace learning has been to identify the characteristics of workplace learning as experienced by the learner. The impact of the wider organisational process in which that learning is embedded has been played down. This paper, building on the work of Koike and Darrah, uses research conducted in a major multinational corporation (MNC) in South-East Asia, to explore the impact of the wider organisational structures on the process of learning. The model it develops not only shows how these processes impact on workplace learning but also helps explain why workers acquire different levels of skill.

**KEY WORDS:** Workplace Learning; Workplace Characteristics; Organisational Process; Process of Learning; Skill.

3. Barber, J. (2004). Skill upgrading within informal training: Lessons from the Indian auto mechanic. *International Journal of Training & Development*, 8(2), 128-139.

Informal training is known to be the dominant skill acquisition strategy for the majority of workers in India and many other economically developing countries and there is much benefit in understanding the strengths and weaknesses of this form of training. This article uses a participant observation case study in northern India to investigate these strengths and weaknesses as well as to search out causes and influences that may be of benefit to those that seek to understand the process of informal learning.

**KEY WORDS:** Skill Upgrading; Informal Training; Skill Acquisition Strategy; Indian Auto Mechanic; Developing Countries.

4. Billett, S. (2002). Workplace pedagogic practices: Co-participation and learning. *British Journal of Educational Studies*, 50(4), 457-481.

This paper advances tentative bases for understanding workplace pedagogic practices. It draws on a series of studies examining learning through everyday work activities and guided learning in the workplace. These studies identified the contributions and limitations of these learning experiences. However, whether referring to the activities and interactions arising through work or intentional guided learning, the quality and likely contributions of these learning experiences are underpinned by workplace participatory

practices. These practices comprise the reciprocal process of how workplaces afford participation and how individuals elect to engage with the work practice, termed co-participation. Workplace experiences are not informal. They are a product of the historical-cultural practices and situational factors that constitute the particular work practice, which in turn distributes opportunities for participation to individuals or cohorts of individuals. That is, they shape the conduct of work and learning through these practices. However, how individuals construe what is afforded by the workplace shapes how they elect to engage in that practice and learn. There is no separation between engaging in conscious thought - such as when participating in socially derived activities and interactions and learning. Learning is conceptualised as an inter-psychological process of participation in social practices such as workplaces. It is not reserved for activities and interactions intentionally organised for learning (e.g. those in educational institutions). Nevertheless, particular kinds of activities are likely to have particular learning consequences, regardless of whether they occur in the workplace or in educational institutions. The significance of co-participation is discussed in terms of the affordance of the workplace and individuals' construction of that affordance and subsequent engagement. Co-participation is proposed as a platform to build an understanding of workplace pedagogic practices. This includes understanding the likely contributions of learning through everyday work activities and the use of intentional workplace learning strategies, such as guided workplace learning (e.g. modelling, coaching, questioning, etc.). Instances of co-participatory practices are illustrated and discussed. Following this, a tentative scheme, founded in socio-historical activity theory, is advanced as a means for describing the requirements for work and bases for participation. The scheme comprises two dimensions: activities and interdependencies.

**KEY WORDS:** Workplace Learning; Pedagogic Practices; Participatory Practices; Workplace Pedagogy; Learning Through Work.

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

This article proposes bases for a workplace pedagogy. Planes of intentional guidance and sequenced access to workplace activities represent some key workplace pedagogic practices. Guidance by others, situations, and artifacts are central to learning through work because the knowledge to be learned is historically, culturally, and situationally constituted. However, the quality of learning through these planes of activities and guidance is ultimately premised on the workplace's participatory practices, which shape and distribute the activities and support the workplace affordance workers and from which they learn. Situational and political processes underpin these workplace affordances. Yet participatory practices are reciprocally constructed because individuals elect how to engage in and learn from what workplaces afford them. A workplace pedagogy is founded in these coparticipatory practices and needs to account for how workplaces invite access to activities and guidance and how individuals elect to participate in what the workplace affords.

**KEY WORDS:** Adult Learning; Interpersonal Relationship; Learning Processes; On-the-Job Training Transfer of Training; Work Environment.

6. Billett, S. (2004). Workplace participatory practices: Conceptualising workplaces as learning environments. *The Journal of Workplace Learning*, 16(6), 312-324.

Arguing against a concept of learning as only a formal process occurring in explicitly educational settings like schools, the paper proposes a conception of the workplace as a learning environment focusing on the interaction between the affordances and constraints

of the social setting, on the one hand, and the agency and biography of the individual participant, on the other. Workplaces impose certain expectations and norms in the interest of their own continuity and survival, and in the interest of certain participants; but learners also choose to act in certain ways dependent on their own preferences and goals. Thus, the workplace as a learning environment must be understood as a complex negotiation about knowledge-use, roles and processes - essentially as a question of the learner's participation in situated work activities.

**KEY WORDS:** Workplace Learning; Employee Participation.

7. Boud, D., & Middleton, H. (2003). Learning from others at work: Communities of practice and informal learning. *Journal of Workplace Learning*, 15(5), 194-202.

Interviews in four worksites with tiling teachers, educational planners, human resources officers, and off-campus trainers found that learning was strongly influenced by the nature of the work and workplace. However, only some of the learning networks fit the concept of communities of practice; other conceptualizations are needed to reflect the process accurately.

**KEY WORDS:** Adult Education; Informal Education; Learning Processes; Social Networks; Teamwork; Workplace Learning.

8. Brockman, J. L. (2004). Problem solving of machine operators within the context of everyday work: Learning through relationship and community. *Dissertation Abstracts International*, 65-04A, pp.1282.

Informal learning constitutes much of the learning that occurs within the workplace and occurs most often when an individual's job scope expands. Organizations are increasingly expecting their frontline employees to solve problems, creating a "new" space for learning to occur. Problem-solving provides the opportunity for creating experiences that lead to informal learning. But, problem solving represents one of the most neglected areas of research in the workplace, particularly within the context of manufacturing. Also, neglected in the literature from the standpoint of the workers themselves, the intersection between the gaining popularity of knowledge management and the increased expectation for frontline employees to solve operational problems on their own. The purpose of this qualitative study was to explore the informal learning associated with the problem solving process of machine operators within the context of their everyday work. Hence, the research question: What is the nature of the informal learning associated with the problem solving process of machine operators within the context of their everyday work? Using the critical incident technique, twenty machine operators from three manufacturing organizations were interviewed individually, with 8 of the twenty participating in a follow-up focus group session.

The findings show that first, learning is perceived by machine operators to be intimately bound up with problem solving. Second, the problem solving process is triggered by an incident which leaves them frustrated, confused and uncomfortable. The process of regaining equilibrium or certainty is inherently social in nature and is guided by personal strategies to achieve balance. Third, problem solving and learning are part of an ongoing process of becoming a machine operator, with three definable phases. Fourth, the consequences of the learning process result in several kinds of knowledge. The main conclusion of this study was that nature of informal learning of machine operators is shaped by the dialogic relationship between the worker, the task and the machine, within a broader community of practice.

This study has enhanced the understanding of the informal learning associated with the problem solving process of machine operators within the context of their everyday work. This enhancement of understanding has implications for both theory and practice. Recommendations for further research touch upon both methodology and theory.

**KEY WORDS:** Education; Industrial Education; Vocational Education; Sociology; Industrial and Labor Relations.

9. Dawe, S. (2003). *Determinants of successful training practices in large Australian firms*. Leabrook: National Centre for Vocational Education Research.

The determinants of successful training practices in large Australian firms were examined. The study's three phases were as follows: (1) a review of existing literature; (2) a meta-analysis of previously conducted case studies of 49 large Australian firms in 14 industrial sectors; and (3) a comparative analysis of the findings of the past studies with those of 5 follow-up cases studies from 4 industries (wine production, tourism, electrical accessories manufacturing, and government). The following elements were identified as major contributors to successful training practices: (1) having an organizational culture that supports learning; (2) sourcing formal training within the organization itself; (3) adopting accredited training; (4) decentralizing training within the organization; (5) increasing the diversity of training and learning approaches; (6) responding to individuals' needs; (7) increasing the use of informal training; (8) responding to change within and external to the organization; (9) linking training to major features of a business strategy; and (10) obtaining feedback from workers, managers, trainers, customers, and other stakeholders. The follow-up case studies supported these elements and established that items 1, 8, and 9 are the most important.

**KEY WORDS:** Adjustment (to Environment); Adult Learning; Case Studies; Comparative Analysis; Competence; Competency Based Education; Contract Training; Corporate Education; Definitions; Education Work Relationship; Feedback; Followup Studies; Foreign Countries; Glossaries; Industrial Training; Informal Education; Inplant Programs; Instructional Design; Instructional Effectiveness; Job Skills; Literature Reviews; Nonformal Education; Organizational Culture; Performance Factors; Postsecondary Education; Strategic Planning; Success; Training Methods; Work Environment; Australia; Learning Organizations; National Training Packages (Australia); Training Effectiveness; Training Needs; Work Based Learning.

10. Devins, D., Smith, V., & Holden, R. (2001). Creating "learning" industrial estates: Addressing lifelong learning in small and medium enterprises. *Research in Post-Compulsory Education*, 6(2), 205-221.

Establishment of learning centers in British industrial estates was evaluated through telephone and mail questionnaires, focus groups, and case studies. The objective of learning networks was not fully realized. Tensions between the needs and interests of employers, learning providers, and individual workers was found.

**KEY WORDS:** Adult Education; Educational Improvement; Employer Employee Relationship; Foreign Countries; Lifelong Learning; Small Businesses; United Kingdom.

11. Ellis, K. (2003). Top training strategies: New twists on familiar ideas. *Training*, 40(7), 30-34,36.

Provides examples of how companies are using the following strategies in innovative ways: knowledge sharing using knowledge-management portals, informal learning, real-

time learning, competency-based learning linked to business strategies, calculation of the return on investment in learning, and academic-corporate partnerships.

**KEY WORDS:** Competency Based Education; Corporate Education; Educational Strategies; Informal Education; Partnerships in Education; Training.

12. Elsey, B., & Sirichoti, K. (2002). The learning facilitation role of agricultural extension workers in the adoption of integrated pest management by tropical fruit growers in Thailand. *Studies in Continuing Education, 24*(2), 167-180.

A sample of 120 Thai fruit growers reported that agricultural extension workers were influential in their adoption of integrated pest management, which balances cultural tradition and progressive practice. Extension workers used discussion and reflection on practical experience, a participatory and collaborative approach to the adoption of innovations.

**KEY WORDS:** Adoption (Ideas); Adult Education; Change Agents; Educational Strategies; Extension Agents; Foreign Countries; Innovation; Nonformal Education; Pests; Thailand.

13. Enos, M. D., Kehrhahn, M. T., & Bell, A. (2003). Informal learning and the transfer of learning: How managers develop proficiency. *Human Resource Development Quarterly, 14*(4), 369-387.

This paper examined how the extent to which managers engaged in informal learning, perceptions of support in the transfer environment, and level of managerial proficiency related to transfer of learning in twenty core managerial skills. The results suggested that informal learning is predominantly a social process and that managers with high levels of proficiency who experience low levels of coworker, supervisor, and organizational support learn managerial skills mostly from informal learning and transfer learning more frequently. New perspectives are offered on the interrelationship between informal learning and transfer of learning, the role of metacognition and self-regulation in informal learning, and the influence of informal learning in the development of managerial proficiency.

**KEY WORDS:** Informal Learning; Support Perceptions; Learning Transfer; Core Managerial Skills; Managerial Proficiency; Organizational Support; Social Process.

14. Eraut, M. (2000). Non-formal learning and tacit knowledge in professional work. *British Journal of Educational Psychology, 70*(1), 113-136.

The paper discusses professional education and learning in the workplace and the conceptual and methodological problems that have occurred from its empirical investigations. The author discusses nonformal learning and tacit knowledge, the importance of tacit knowledge for professional work and the issues affecting the use of different approaches of cognition in professional work, and the respective roles of individual and social work.

**KEY WORDS:** Theory of Knowledge; Nonformal Education; Learning; Psychology of/Cooperative Learning; Professional Education; Employees/Training; Work and Learning.

15. Eraut, M., Maillardet, F., Miller, C., Steadman, S., Ali, A., Blackman, C., et al.

(2003, Apr). Learning in the first professional job: The first year of full time employment after college for accountants, engineers and nurses. Paper presented at the Annual Meeting of the American Educational Research Association (AERA) "Accountability for Educational Quality: Shared Responsibility" 84th, Chicago, IL, April 21-25, 2003.

Learning in the first professional job was examined in a study of 40 nurses, 27 engineers, and 16 accountants who were in their first full year of full-time employment after college in hospitals and firms located in the United Kingdom. Data were collected through the following activities: (1) interviews with the respondents; (2) 1- to 2-day visits to their workplaces; and (3) interviews with their managers/mentors and significant others in their workplaces. The first few months of full-time employment presented very different challenges and experiences across the three sectors. The accountants had 3-year contracts that included both training for professional examinations and work-based induction into the profession through a tightly structured apprenticeship system. Although the nurses had already qualified for their profession, they still faced a difficult transition because of their sudden assumption of extensive responsibility and immersion into a highly demanding, high-pressure environment with a very heavy workload. The engineers' workplaces all had accredited graduate training schemes. Across the occupations, informal support proved more important than formal support and social relationships were a significant factor in learning.

**KEY WORDS:** Accountants; Apprenticeships; Case Studies; College Graduates; Competence; Education Work Relationship; Employment Qualifications; Engineers; Entry Workers; Environmental Influences; Foreign Countries; Higher Education; Influences; Informal Education; Job Performance; Job Skills; Learning Motivation; Learning Processes; Mentors; Nurses; Peer Relationship; Prior Learning; Professional Occupations; Skill Development; Work Environment.

16. Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26(2), 247-273.

This article focuses mainly on theoretical frameworks for understanding and investigating informal learning in the workplace, which have been developed through a series of large- and small-scale projects. The main conclusions are included but readers are referred to other publications for more detailed accounts of individual projects. Two types of framework are discussed. The first group seeks to deconstruct the 'key concepts' of informal learning, learning from experience, tacit knowledge, transfer of learning and intuitive practice to disclose the range of different phenomena that are embraced by these popular terms. The second group comprises frameworks for addressing the three central questions that pervaded the research programme: what is being learned, how is it being learned and what are the factors that influence the level and directions of the learning effort?

**KEY WORDS:** Professional Socialization; United Kingdom; Work Based Learning; Work and Learning.

17. Figgis, J., Alderson, A., Blackwell, A., Butorac, A., Mitchell, K., & Zubrick, A. (2001). What convinces enterprises to value training and learning and what does not? A study in using case studies to develop cultures of training and learning. Melbourne: Australian National Training Authority.

The authors examined the feasibility of using case studies to convince enterprises to value training and learning. First, ten Australian enterprises were studied in sufficient

depth to construct a comprehensive picture of each enterprise, its culture, and the strategies it uses to develop the skills and knowledge of individual employees and the organization as a whole. Next, the case study findings were presented to ten different enterprises. Those enterprises were asked to identify what in the materials convinced them that rethinking their own approaches to training and learning might prove profitable. Most enterprises considered informal strategies for skill development more important and effective than has been acknowledged by Australia's vocational education and training sector. The enterprises also liked the cost-effectiveness and flexibility of informal strategies. The following were among the key findings: (1) real and detailed examples should be used when attempting to convince enterprises to rethink their approach to training and learning; (2) although enterprises are concerned with calculating returns on investment in training and learning, they do not necessarily need to see the impact directly in dollars in their bottom line; and (3) personal interaction is the most effective channel of communication with enterprises.

**KEY WORDS:** Attitude Change; Case Studies; Change Strategies; Cost Effectiveness; Definitions; Educational Attitudes; Educational Research; Employer Attitudes; Feasibility Studies; Foreign Countries; Guidelines; Informal Education; Job Training; Learning Processes; Marketing; Models; Organizational Change; Organizational Climate; Postsecondary Education; Research Methodology; Research Utilization; Role of Education; School Business Relationship; Secondary Education; Training Methods; Training Objectives; Vocational Education; Australia; Educational Marketing; Learning Organizations.

18. Foley, G. (1999). *Learning in social action: A contribution to understanding informal education. Global perspectives on adult education and training.* New York: St. Martin's Press.

This book argues the importance of the incidental learning that can occur when people become involved in voluntary organizations, social struggles, and political activity. Chapter 1 introduces the case studies of informal learning in social struggle used to develop the argument and outlines the theoretical framework within which the case studies are located. Chapter 2 argues that unlearning dominant discourses and learning resistant discourses are central to emancipatory learning, and applies theoretical insights on ideology and discourse to three case studies of women's learning in community and workplace struggles in the United States. Chapter 3 examines a successful campaign to preserve a rainforest in eastern Australia and the learning that occurred. Chapter 4 looks at the dynamics of community-based adult learning by examining informal learning in two neighborhood centers in an Australian city. Chapter 5 examines education and learning in the current process of global economic restructuring, and how and what workers learn as they negotiate workplace change. Chapter 6 examines the learning dimension of women's movements in Brazil from 1964-89. Chapter 7 examines whether political education and learning in the Zimbabwe national struggle promoted democracy and socialism, or whether the country was too weak. Chapter 8 discusses application of the analysis developed, reviews and relates the theoretical framework to a broader body of adult education theory, and suggests further research on the relationship of emancipatory struggle and learning. The book contains 257 references and an index.

**KEY WORDS:** Social Action; Adult Education; Experiential Learning; Informal Education; Teaching Methods.

19. Frazis, H., Joyce, M., & Gittleman, M. (2000). Correlates of training: An analysis using both employer and employee characteristics. *Industrial and Labor Relations Review*, 53(3), 443-462.

Training incidence and intensity was analyzed using employer and employee data from the 1995 Survey of Employer-Provided Training. Education was positively related to receipt and intensity of training. Companies with generous fringe benefits and innovative work practices also provided more formal and informal training.

**KEY WORDS:** Employer Employee Relationship; Fringe Benefits; Innovation; Training; Training Allowances.

20. Gopee, N. (2002). Human and social capital as facilitators of lifelong learning in nursing. *Nurse Education Today*, 22(8), 608-616.

Interviews and focus groups with 27 nurses revealed the influence of health care professionals and nonprofessional acquaintances on participation in lifelong learning. Substantial informal learning occurs through work-based contexts, supported by other significant individuals. These factors constitute human and social capital, a significant enabler of professional learning.

**KEY WORDS:** Human Capital; Influences; Informal Education; Lifelong Learning; Nurses; Professional Development; Social Capital.

20. Guile, D., & Griffiths, T. (2001). Learning through work experience. *Journal of Education and Work*, 14(1), 113-131.

Analyzes how students learn and develop through work experience. Presents a typology of work experience that identifies five models: traditional, experiential, generic, work process, and connective. Suggests that connectivity may provide the basis for a productive and useful relationship between formal and informal learning.

**KEY WORDS:** Education Work Relationship; Individual Development; Informal Education; Learning Theories; Models; Secondary Education; Social Environment; Work Environment; Work Experience Programs.

21. Henderson, M. E. (2003). *Career women: Managing learning and overcoming obstacles through lifelong learning concepts*. Paper presented at the American Educational Research Association, Chicago.

This qualitative study focused primarily on career women, managing learning, and the application of lifelong learning concepts. The main purpose of the study was to discover how lifelong learning concepts may have been instrumental in influencing the vision, attitude, and goals of the 20 career women included in this inquiry (two women were interviewed in person, while 18 women completed a survey). Further, learner-managed learning, motivational theories, and reading reviews have been included in the study to establish a framework from which to identify the lifelong learner. This study identified the importance of promoting lifelong learning in society.

**KEY WORDS:** Career Development; Females; Interviews; Learner Controlled Instruction; Learning Motivation; Lifelong Learning; Qualitative Research; Surveys; Social Learning Theory.

22. Hu, Y. M., Kazuo. (2005). Schooling, working experiences, and human capital formation. *Economics Bulletin*, 15(3), 1-8.

Human capital is a composite of 2 types of knowledge and skills: one is accumulated by formal education in schools and the other is accumulated through working experiences in

production activities. Introducing the concept of human capital into the standard Lucas-Uzawa model of endogenous growth, we show that a higher rate of long-run growth is not necessarily associated with a higher level of education attainment.

**KEY WORDS:** Analysis of Education; Human Capital; Skills; Occupational Choice; Labor Productivity; Formal Training Programs; On-the-Job Training; Growth Models; Education; Growth; Human Capital; Schooling; Skill Development.

23. Kilpatrick, S., & Falk, I. (2001). *Benefits for all: How learning in agriculture can build social capital in island communities*. Tasmania: Centre for Research and Learning in Regional Australia.

Social capital helps communities respond positively to change. Research into managing change through learning in communities and in small businesses, particularly farm businesses, has highlighted the importance of relationships between people and the formal and informal structure of communities to the quality of outcomes experienced by communities. Communities can be geographic communities or communities-of-common-purpose, such as agricultural commodity organizations or discussion groups. This paper reviews research into managing change through learning and social capital, presents a model of the simultaneous building and use of social capital, and explores the ways in which learning as part of an agricultural community can be used to bring benefits to isolated geographic communities. The model presented stems from studies in Tasmania (Australia) of the informal learning process that builds resilient communities. The two-stage model conceptualizes the way in which social capital is used and built in interactions among individuals. The first stage depicts social capital at the micro level of one-on-one interactions, focusing on knowledge resources and identity resources (identification with and commitment to the community). The second stage of the model outlines the interrelationship of micro-level social capital processes with community-level and societal-level social capital resources.

**KEY WORDS:** Access to Information; Community Change; Community Development; Community Resources; Experiential Learning; Farmers; Foreign Countries; Human Resources; Informal Education; Interpersonal Relationship; Models; Organizations (Groups); Rural Areas; Rural Development; Social Capital; Social Networks Australia (Tasmania).

24. Lans, T., Wesselink, R., Biemans, H. J. A., & Mulder, M. (2004). Work-related lifelong learning for entrepreneurs in the agri-food sector. *International Journal of Training & Development*, 8(1), 73-89.

This article presents a study on work-related lifelong learning for entrepreneurs in the agri-food sector. Accordingly, learning needs, learning preferences, learning motivation and conditions in the context of lifelong learning were identified. The results indicate that technology, IT and entrepreneurial competencies will become of increasing importance in the future. Non-formal and informal learning seem to play an especially important role in the competence development of entrepreneurs. Supporting learning in a personal way is a critical factor in stimulating lifelong learning. The results might provide some important starting points for the support of lifelong learning in practice. Investment in new, different, long-term work-related learning arrangements than have been undertaken hitherto is a high priority. Workplace learning for entrepreneurs in the context of lifelong learning should take place in settings where (new) knowledge is constructed in dialogue with the entrepreneurs' environment and where personal competence development is facilitated by experts in learning.

**KEY WORDS:** Workplace Learning; Lifelong Learning; Entrepreneurs; Agri-Food Sector;

Learning Needs; Learning Preferences; Learning Motivation; Learning Conditions; Entrepreneurs Competence.

25. Lantz, A., & Friedrich, P. (2003). Learning in the workplace - An instrument for competence assessment. *Learning Organization*, 10(3), 185-194.

A competence assessment instrument that measures cognitive complexity used structured interviews to investigate means-goal relationships in different work activities. Validity and reliability were confirmed by two tests of inter-rater reliability and six tests of validity.

**KEY WORDS:** Competence; Interrater Reliability; Interviews; Lifelong Learning; Measures (Individuals); Test Reliability; Test Validity.

26. Macneil, C. (2001). The supervisor as a facilitator of informal learning in work teams. *Journal of Workplace Learning*, 13(6), 246-253.

Supervisors who are effective facilitators use their own learning and interpersonal skills to encourage informal learning in work teams. Use of facilitation skills can be inhibited by lack of organizational support and reluctance to change power relationships.

**KEY WORDS:** Educational Environment; Informal Education; Interpersonal Competence; Supervisor Supervisee Relationship; Supervisors; Teamwork; Facilitators.

27. Mau, D. C. (2002). Survivors of downsizing: Informal learning of older adults who remain in the workplace after their organization experiences a downsizing. Unpublished Dissertation (Doctor of Education), Teachers College, Columbia University.

This dissertation is a qualitative study of the informal learning experienced by older adults who retain their jobs after a downsizing in their organizations. The problem which prompted the study is that companies are struggling with the negative effects of downsizing and the need to create and retain a competent, motivated workforce from their surviving employees. The study addresses the question of how older survivors learn to adjust to a new psychological employment contract which doesn't recognize loyalty or engender trust between companies and their employees.

This research explored the experience of middle managers in two global companies which have experienced numerous downsizing initiatives. It sought to answer: (1) how survivors perceived the reasons for downsizing, (2) how they describe their behavior and attitudes related to downsizing, (3) what learning strategies they use and how they learn informally after a downsizing, and (4) how their company facilitated or impeded their ability to maintain productivity levels.

Data gathering methods included surveys, semi-structured interviews with subjects, and a follow-up web-based questionnaire. Responses were compared to literature on survivor syndrome and reactions to change in the workplace. Findings from this research illustrate both the resiliency and fragility of downsizing survivors. Over time they have learned much about themselves, their careers, and their companies. Four descriptive categories of survivors emerged from this study. These were identified as "Bailing Out," "Hanging On," "Cautiously Committed," and "Strongly Committed." Each describes the subjects' cognitive and emotional reactions to their experiences with downsizing. Though they express it in different ways, the subjects in this study demonstrated informal learning as a necessary outcome of surviving downsizings. This learning could be captured and shared

with both young and older workers in order to develop the resilience needed in a workplace dominated by downsizing and change. Companies also need to recognize the value of survivor learning as a necessary component for a healthy and productive organization.

**KEY WORDS:** Adult Education; Continuing Education; Occupational Psychology; Management; Middle Management; Organizational Learning; Downsizing; Older Workers; Studies.

28. Quarter, J., & Midha, H. (2001). *Informal learning processes in a worker cooperative*. NALL Working Paper No. 45. Toronto: Centre for the Study of Education and Work, OISE/UT. Available at: <http://www.nall.ca/>.

A study was conducted to understand the informal learning processes of the members of a worker natural foods store cooperative, The Big Carrot, in Toronto. Eight members with central roles in the natural foods retailer were interviewed. In addition, key documents and other writings on the cooperative were examined. The data indicate that members of the cooperative acquire the knowledge that is needed to perform their roles using informal learning processes. Processes most often used were the following: (1) learning from experiences (learning by doing); (2) discussions (either one-on-one or during meetings); and (3) questions to internal experts and other members. The study concluded that the success of the informal learning processes at the Big Carrot may be due in part to the "social capital" in place as a result of the cooperative structure in which workers play a more integral role than in more common capitalist businesses.

**KEY WORDS:** Business Administration; Collegiality; Cooperatives; Developed Nations; Discussion; Experiential Learning; Foreign Countries; Informal Education; On-the-Job Training Ownership; Participative Decision-Making; Postsecondary Education; Program Effectiveness; Social Capital; Success; Ontario (Toronto).

29. Reardon, R. F. (2004). Informal learning after organizational change. *Journal of Workplace Learning*, 16(7), 385-395.

This inductive, qualitative study investigates how learning took place among nine experienced engineers in an industrial setting after a major reorganization. A thematic analysis of the transcripts revealed that the learning was informal and that it fell into three distinct categories: learning new workflows, learning about the chemical process, and developing engineering expertise. The participants also describe five limitations to the learning in this context. The dynamic context of this study had a strong influence on the learning that took place.

**KEY WORDS:** Informal Learning; Organizational Change; Professional Education; Workplace Learning.

30. Schugurensky, D. (2000). *The forms of informal learning: Towards a conceptualization of the field*. NALL Working Paper No. 19. Toronto: Centre for the Study of Education and Work, OISE/UT. Available at: <http://www.nall.ca/>.

This paper shows that as an analytical category, if the concept of informal learning is used without distinguishing its internal forms, researchers may easily fall into conceptual confusion. The concept of informal learning is useful but still is too broad, as it encompasses different types of learnings which are usually conflated. This leads to a question: is it possible to develop a taxonomy of informal learning? The author suggests

that by using two main categories (intentionality and consciousness), it is possible to develop a taxonomy which identifies three forms (or types) of informal learning: self-directed learning, incidental learning and socialization.

**KEY WORDS:** Informal Learning; Taxonomy; Self-directed Learning; Incidental Learning; Socialization.

31. Singh, M. (2000). Combining work and learning in the informal economy: Implications for education, training and skills development. *International Review of Education*, 46(6), 599-620.

Urges systems of education and training to cater to both formal and informal labor markets. Identifies the following components of such efforts: (1) taking into account the traditions and values of the system of vocational learning in working life; (2) accommodating local development needs; and (3) building on the competencies that people in the informal economy want and utilize.

**KEY WORDS:** Adult Basic Education; Adult Education; Conference Papers; Education Work Relationship; Equal Education; Foreign Countries; Informal Education; Nonformal Education; On-the-Job Training Technical Education; Vocational Education.

32. Skule, S. (2004). Learning conditions at work: A framework to understand and assess informal learning in the workplace. *International Journal of Training & Development. Special Workplace Learning*, 8(1), 8-20.

The purpose of this article is to develop a framework to understand and assess the quality of learning environments in the workplace. It is argued that indicators used to measure and assess informal learning at work, at both the national and the enterprise level, are underdeveloped. Consequently, current frameworks to measure and benchmark learning are heavily biased towards education and formal training. A new framework is developed, based on a quantitative survey representative of the private sector in Norway. The framework consists of seven learning conditions, which have significant effects on informal learning at work. Implications for further research, policy and practice are discussed.

**KEY WORDS:** Informal Learning; Learning Environments; Learning Conditions; Workplace.

33. Smaller, H., Clark, R., Hart, D., Livingstone, D., & Noormohammed, Z. (2000). *Teacher Learning, Informal and Formal: Results of a Canadian Teachers' Federation Survey*. NALL Working Paper No. 14. Toronto: Centre for the Study of Education and Work, OISE/UT. Available at: <http://www.nall.ca/>.

As part of a larger national study examining informal learning practices across the general population, a representative random sample of elementary and secondary school teachers across English Canada were sent English language questionnaire forms in October of 1998, inquiring into their practices and opinions concerning their own on-going learning. Respondents (N=753) were asked to comment on any informal learning they may have done in the past year in their workplaces, their homes and their communities. They were also asked to report on any formal learning activities in which they participated in, including courses, workshops or conferences. Most questions replicated closely those asked in the 1998 national telephone survey (N=1562) of Canadian adults' learning practices (see Livingstone 1999).

Over 85% of all teachers indicated that they had engaged in formal courses and workshops in the previous year, as compared to 49% of the entire Canadian labour force, and 67% of those in the labour force with university level education. Similarities and differences among teachers' responses were examined, based on gender, age, region, elementary/secondary school placement, urban/rural residence, position in the system. Teachers reported spending an average of over eight hours per week engaged in their own formal learning activity (including course time, reading and preparing assignments). In addition to this formal learning, teachers reported that they also spent an average of 4 hours per week in informal learning related to their jobs and an average of 10 hours per week devoted to informal learning activities generally (related to their employment, housework, community volunteer work and other general interests). Again, there were variations among teachers as well as within the general labour force. As one example, 89% of teachers, as compared to only 61% of the overall labour force and 77% of employed professionals, had engaged in informal learning of computers in the previous year.

**KEY WORDS:** Courses; Elementary/ Secondary Education; Informal Education; Inservice Teacher Education; Teacher Attitudes; Teacher Participation; Formal Education.

34. Smaller, H., Hart, D., Clark, R., & Livingstone, D. (2001). *Informal/formal learning and workload among Ontario secondary school teachers*. NALL Working Paper No. 39. Toronto: Centre for the Study of Education and Work, OISE/UT. Available at: <http://www.nall.ca/>.

Teachers' work in Canada, as elsewhere, is undergoing considerable change. Increasingly, standardized syllabi, curricula, assessment, student testing and reporting regimes are being imposed by central departments of education, and judging from reports on these interventions, provision for teachers to engage in formal workshops or training sessions to help understand and implement these initiatives has been uneven. While teachers, like all employees, have always engaged in incidental and informal learning with colleagues and others, the nature and extent of these recently imposed schooling reforms have raised questions about the ways in which teachers' "on-the-job" learning practices might also have been affected.

Following up on an earlier national survey study of teachers' formal and informal learning practices and interests, this paper covers two subsequent phases of the study undertaken by members of the same research group. For seven consecutive days in November/December 1999, and again the following February/March, thirteen Ontario secondary school teachers kept detailed logs of their day and evening activities, along with notations about what, if anything, they may have learned as a result of engaging in each of their numerous activities. Following an analysis of these diaries, lengthy telephone interviews were conducted during September 2000 with four of the diarists, for the purpose of exploring more thoroughly their engagement in formal and informal learning practices, particularly as they pertained to several province-wide schooling reform initiatives which were being introduced by the provincial government at the time. The 23 diaries revealed an average teacher workload of 48.7 hours per week, comparable to that found in similar teacher workload studies in other jurisdictions.

Based on the data from the subsequent interviews, these teachers reported high levels of engagement in intentional informal learning activities, both at school and at home, in order to learn about and cope with the immense task of implementing the reforms. The paper ends with discussion on how this new informal learning resulted in new perceptions and beliefs about teacher identity, professionalism and the role of teacher unions.

**KEY WORDS:** Informal Education; Secondary Education; Secondary School Teachers;

Teaching Conditions; Teaching Load; Formal Education.

35. Thomas, L., & Slack, K. (2003). Developing an evaluation framework: Assessing the contribution of community-based and work-based approaches to lifelong learning amongst educationally marginalised adults. *Research in Post-Compulsory Education*, 8(1), 19-38.

Community-based and work-based learning projects to promote lifelong learning for marginalized British adults were compared on the following criteria: target audience, outreach, meeting new learners' needs, student development, sustainability, and generalizability. Systematic analysis showed the projects were more complex than a stereotypical economic versus progressive dichotomy. The evaluation framework could help balance elements in project development.

**KEY WORDS:** Adult Education; Community Education; Educationally Disadvantaged; Evaluation Methods; Foreign Countries; Lifelong Learning.

36. Turner, C. (2000). *Identification, assessment and recognition of non-formal learning in Greece*. Thessaloniki: European Centre for the Development of Vocational Training.

This report describes a study to provide a picture of the stage of development, level, and nature of the debate on nonformal learning in Greece. It describes the national debate on questions of identification, assessment, and recognition of nonformal learning, including means, motives, and areas of agreement and conflict. Then, it describes existing and proposed methodologies and systems based on viewpoints and debates involving stakeholders. Links between initiatives related to nonformal learning assessment and the national qualification standards/framework are explored, and reference is made to areas of importance and concern. Finally, effectiveness, legitimacy, and validity of existing methods and experiences are assessed, including issues of mobility and visibility. Gaps and weaknesses are highlighted, and reflections on the future are expressed. Findings indicate that the past 3-4 years have witnessed the beginning of an awareness and interest by social partners and the government in Greece to issues related to identification, assessment, and recognition of nonformal learning. There is evidence of an initial level of dialogue on the issue but no coordinated integrated approach. Interest in the issues around nonformal learning focus essentially on recognition of nonformal vocational training and regulation over time of certain professions and trades, in a piecemeal and limited way, with inconsistent outcomes.

**KEY WORDS:** Adult Education; Developed Nations; Educational Certificates; Foreign Countries; National Standards; Nonformal Education; Nontraditional Education; Postsecondary Education; Prior Learning; Secondary Education; Student Certification; Student Evaluation; Vocational Education; Greece.

37. Whittington, D., & McLean, A. (2001). Vocational learning outside institutions: Online pedagogy and deschooling. *Studies in Continuing Education*, 23(2), 153-167.

Using Illich's "Deschooling Society" as a framework, argues that online learning's flexibility and capacity to support dialogue will profoundly change vocational learning and challenge established institutions' dominance in vocational education and training. Calls for an inclusive approach involving informal learning and access for those unable to pay.

**KEY WORDS:** Educational Change; Informal Education; Job Skills; Online Courses;

Vocational Education.

38. Yannie, M. (2002). Effective informal learning: Considerations for the workplace. *Catholic Library World*, 72(3), 155-158.

Offers practical advice for learning more effectively on the job. Highlights include types of communication, including written and verbal; informal learning; a work environment that is conducive to informal learning, including organizational culture, job responsibilities, performance requirements, time and scheduling factors, and career stage; motivation; and insecurity issues.

**KEY WORDS:** Communication; Job Skills; Learning Strategies; Motivation; On-the-Job Training Time Management; Work Environment; Career Stages; Informal Knowledge; Organizational Culture.

39. Zambarloukos, S., & Constantelou, A. (2002). Learning and skills formation in the new economy: Evidence from Greece. *International Journal of Training and Development*, 6(4), 240-253.

Interviews with 26 Greek companies involved in electronic activity revealed few major differences in recruiting information/communications technology (ICT) specialists and extensive use of outsourcing, especially by small firms. Those with recruiting difficulties thought ICT education was inadequate. Informal learning was important, but lack of in-house capability limited the amount and type.

**KEY WORDS:** Economic Change; Foreign Countries; Human Resources; Information Skills; Information Technology; Job Training; Organization Size (Groups); Skill Development; Small Businesses; Telecommunications.



The Research Network on Work and Lifelong Learning  
Resource Base Development Office  
Centre for the Study of Education and Work (CSEW)  
Ontario Institute for Studies in Education of the University of Toronto (OISE/UT)  
252 Bloor Street W, #12-256, Toronto, ON, M5S 1V6, Canada  
Tel (416) 923-6641 ext. 2392, Fax (416) 926-4751  
E-mail: [wallnetwork@oise.utoronto.ca](mailto:wallnetwork@oise.utoronto.ca)