Canadian accountants: examining workplace learning

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Abstract

Purpose – This paper seeks to examine workplace learning strategies, learning facilitators and learning barriers of public accountants in Canada across three professional levels – trainees, managers, and partners.

Design/methodology/approach – Volunteer participants from public accounting firms in Nova Scotia and New Brunswick completed a demographic survey, a learning activities survey, a learning barriers survey, and a learning facilitators survey. Quantitative analysis provided total scores for key variables and compared these across the three levels.

Findings – The paper finds that accountants across different levels use a variety of formal and informal learning strategies, although informal strategies predominate. Accountants encounter numerous facilitators and barriers. There are variations in strategies, barriers and facilitators based on professional level; for example, trainees make more use of e-learning than do either managers or partners.

Research limitations/implications – Future research could focus on the efficacy of accountants' formal and informal learning strategies as well as how e-learning can be appropriately managed and utilized.

Practical implications – Allocation of work and relationships with people are important to the learning process and should be considered in work assignments. One implication is to encourage informal learning and provide appropriate learning activities and feedback so that informal learning is maximized. There could also be more emphasis placed on assisting partners and managers in developing their roles as coaches and mentors.

Originality/value – The paper provides information on workplace learning for an understudied group of professionals in a Canadian context.

Keywords Workplace learning, Learning methods, Accountants, Canada

Paper type Research paper

Introduction

Learning for people in today's organizations is increasingly seen as an important issue (Sloman and Webster, 2005) and the ability of people and organizations to learn is seen by some as a source of competitive advantage (Döös *et al.*, 2005; Eddy *et al.*, 2006). Others see workplace learning as an area that is problematic, fraught with issues of control and increased learning could be a threat to people's job security (Bratton, 2001). However, there is little doubt that the notion of workplace learning has become of increased interest to researchers in recent years not only for large firms (Rowden, 2002), but for small firms as well (see for example, Doyle and Young, 2003a, 2004; Fenwick, 2003; Fenwick and Hutton, 2000). Workplace learning has also been examined for a variety of groups, for example, human resource development practitioners (Chen *et al.*, 2005; Garrick, 1998), nurses (White *et al.*, 2000), school teachers (Lohman, 2000), lawyers (Hara, 2001) and union members (Bratton, 2001; Livingstone and Sawchuk, 2005; Sawchuk, 2001).

One professional group that merits examination in terms of its workplace learning is accountants in public accounting firms. This is so given the ethical issues the profession has faced recently (Yuthas *et al.*, 2004) and the changing economic and legal environments in which it operates, all of which impact on learning. Two issues in particular will increase the need for learning by staff in public accounting firms. In January, 2006, the Accounting Standard Board (AcSB) of the Canadian Institute of Chartered Accountants decided to adopt International Financial Reporting Standards (IFRS). It has been described as the biggest change in financial reporting in a generation and "IFRS means Canadian businesses will spend millions of dollars to accommodate the change and the accounting profession will have to undergo retraining to get up to speed" (Middlemiss, 2006, p. 28). In addition, the Enron and World-Com scandals have resulted in the Sarbanes-Oxley Act in the USA and a proposed Canadian counterpart, an expansion of rule 52-109. These new requirements require a skill set by auditors that is in demand throughout the world (Morton, 2006).

Further, the profession is a large, growing and important group providing an increasing array of services across sectors such as auditing, information technology and management, and taxation, to name a few. Finally, there has been some research on the workplace learning of accountants in the UK (see for example, Eraut *et al.*, 2003), however, there is a relative paucity of research on the learning activities and characteristics of this profession in a Canadian context. This paper considers the workplace learning of accountants in public accounting firms and in particular examines their learning strategies and the barriers to and facilitators of their workplace learning.

Workplace learning strategies

Workplace learning is defined as a process whereby people, as a function of completing their organizational tasks and roles, acquire knowledge, skills, and attitudes that enhance individual and organizational performance. This learning often occurs as a function of interacting with other people and can result from participation in formal and informal activities at the actual work site or at other locations (Doyle and Young, 2003b, p. 3).

Historically people in organizations have tended to learn most of what they know about their work from their experiences in the workplace (see for example, Bassi *et al.*, 1998; Zemke, 1985) a situation that holds true in recent times (see for example, Doyle and Young, 2003a, b). In fact it has been suggested that experience can be a company's best teacher (Kleiner and Roth, 1997). However, as stated by Ferry and Ross-Gordon (1998, p. 107), "The key to expertise does not seem to reside in merely gaining experience, but in how the individual uses experience as a learning mechanism." Further, as part of their broad experience, people do use a variety of workplace learning strategies both formal and informal (Anderson and Boocock, 2002; Coyle and Ellinger, 2001; Doyle and Young, 2003a; Fenwick, 2003).

Formal learning results from planned, structured, instructor-led courses and programs that tend to be institutionally based (Marsick and Watkins, 2001; Watkins and Marsick, 1992). Formal learning has been described in terms of education and training (Wexley and Baldwin, 1986). For example, management education is intended to "develop a broad managerial knowledge and general conceptual abilities" (Wexley and Baldwin, 1986, p. 278) and management training is intended to "impart specific

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managerial skills" (Wexley and Baldwin, 1986, p. 280). Indeed there are many writers who suggest that increased education and training can increase chances of individual and organizational success (see for example, Ibrahim and Soufani, 2002).

According to Marsick and Watkins (2001) and Watkins and Marsick (1992) informal learning is more under the control of the learner than formal learning, generally occurs outside formal classroom settings and can be planned or unplanned. Incidental learning, a type of informal learning, occurs serendipitously as a result of completing a job and people are often unaware of their learning. Much learning in organizations occurs through informal means (Doyle and Young, 2003a; Eraut, 2004; Lans *et al.*, 2004; Livingstone and Sawchuk, 2005; Murphy and Young, 1995; Rowden and Ahmad, 1999). Learning often occurs as a result of people working with others (Penn *et al.*, 1998). Informal learning strategies also include observation of others (Hara, 2001; Lohman *et al.*, 1996), trying to complete new tasks (Lohman *et al.*, 1996), working in teams (Day, 1998; Macneil, 2001), reflection (Doyle and Young, 1999; Hara, 2001), practice (Hara, 2001), action learning (Miller, 2003) and career development and planning (Cofer, 2000). Hara (2001) has also argued for the development of communities of practice to blend the formal and informal learning of professionals. Other strategies include formal and informal networking (Doyle and Young, 2001), mentoring (Cofer, 2000; Coyle and Ellinger, 2001; Darwin, 2000), and seeking information from co-workers (Hara, 2001; Lohman *et al.*, 1996), application of past learning and experience (Coyle and Ellinger, 2001; Cseh, 1999), and intuition (Coyle and Ellinger, 2001). Reading (Cseh, 1999; Fenwick and Hutton, 2000) and field trips (Cseh, 1999) and research (Cseh, 1999; Sawchuk, 2001) are other strategies used along with informal trial and error (Coyle and Ellinger, 2001; Fenwick and Hutton, 2000; Raffo *et al.*, 2000).

The development of various professional groups from the perspective of novice and expert practitioners has been examined, for example, nurses (Daley, 1999) and adult educators (Ferry and Ross-Gordon, 1998). Further, Dreyfus and Dreyfus (1986) have identified five stages of skill acquisition:

(1) novice;

(2) advanced beginner;

(3) competent;

(4) proficient; and

(5) expert.

Davies and Easterby-Smith (1984) suggested that understanding managers' development might be aided by an understanding of the stages managers pass through during their job tenure. Daley (1999, p. 134) believed that "... professionals move through a developmental continuum in which they progress from novice to expert" and reported that novices and experts differ in how they learn. Daley (1999) concluded that novice nurses tend to learn by forming concepts and assimilating them through formal mechanisms such as reviewing policies and procedures, attending continuing professional education programs, and reading journals. This learning process was driven by fear, mistakes, and the need for validation. The learning process of expert nurses tended to be much more informal, constructivist and self directed than that of the novices. Learning was based on an active assimilation and/or differentiation of concepts based on needs of the client and the practice context. The role of gaining

information from others and sharing information with others was crucial not only for experts' learning, but it was also important to them in a professional context.

What are the workplace learning strategies of practicing accountants? Further, professional accountants generally serve in at least one of three ranks as their careers unfold, trainees, managers and partners. Do learning strategies differ among trainees, managers and partners?

Barriers to and facilitators of workplace learning

There are many barriers or limiters to formal and informal learning in the workplace that have been identified across a variety of contexts, for example, insurance-industry managers (McCracken, 2005), nurses (White *et al.*, 2000), school teachers (Lohman, 2000), those in clerical and manual occupations (Munro *et al.*, 2000), union members (Bratton, 2001; Sawchuk, 2001) and small business owners (Doyle and Young, 2003b). Barriers are simply those factors that prevent learning from starting, impede or interrupt learning or result in learning being terminated earlier than it might have been ordinarily. These limitations to workplace learning include acquisition of inappropriate knowledge, i.e. people might learn about things that are counter to the needs of the organization (Billett, 1995); lack of access to authentic task activities, i.e. learners must be exposed to ongoing, properly sequenced, challenging work (Billett, 1995); lack of expert guidance, i.e. simply not having skilled and knowledgeable people available who can assist others with their learning (Billett, 1995; Doyle and Young, 2003b; Munro *et al.*, 2000; White *et al.*, 2000); reluctant experts, i.e. mentors and coaches might be reluctant to offer knowledge and guidance for fear of losing status or being replaced (Billett, 1995; Munro *et al.*, 2000); opaque knowledge, i.e. knowledge that is required of new learners can be difficult to access and understand (Billett, 1995); limitations of instructional technologies, i.e. requiring learners to transfer knowledge from its acquisition site to its application site (Billett, 1995). Other barriers include lack of time (Doyle and Young, 2003b; Lohman, 2000; White *et al.*, 2000); increased multi-tasking (Bratton, 2001; White *et al.*, 2000); use of new technologies (White *et al.*, 2000); lack of proximity to learning resources (Lohman, 2000); lack of meaningful rewards for learning (Lohman, 2000); limited or lost autonomy in organizational affairs (Bratton, 2001; Livingstone, 2001; Lohman, 2000; Sawchuk, 2001); motivation to learn that decreased when expectations that training would be provided were not met (Munro *et al.*, 2000); difficulty getting time off to attend training sessions (Munro *et al.*, 2000); and those approaching retirement age or those in certain occupational categories are simply overlooked and not included in training sessions (Munro *et al.*, 2000). Finally, not having the right courses available at the right times, not knowing what needs to be learned, and personal factors, such as being hesitant to accept challenges (Doyle and Young, 2003b) were barriers identified in the literature.

Facilitators of workplace learning are those factors that motivate, sustain and/or enhance learning. Workplace learning can likely be improved by removing some of the above barriers, however, some writers have identified specific facilitators. For example, Billett (1995) has suggested providing new employees with structured experiences that are guided by experts in a manner in which requisite knowledge is made more explicit. Day (1998) reported that creating a work climate that was conducive to learning and sharing successes and failures and the learning generated from them enhanced workplace learning. Munro *et al.* (2000) suggested that

opportunities for job enlargement and job enrichment as well as flexibility in work routine and an opportunity to experiment are important enhancers of workplace learning. Increasing curiosity on the part of individuals could increase workplace learning (Reio and Wiswell, 2000). What are the barriers to and facilitators of accountants' workplace learning?

Novice and expert nurses differ in terms of perceived facilitators of and barriers to their learning. Novice nurses felt that having formal learning opportunities available (e.g., nurse educators, textbooks, and conferences) supported their learning, However, expert nurses felt that informal opportunities, for example, chances to informally discuss issues with colleagues, best facilitated their learning (Daley, 1999). Do barriers to and facilitators of workplace learning differ among trainees, managers and partners?

Methodology

Participants in this study were public accountants across three professional categories – trainees, managers and partners. There does not appear to be a standard term for those accountants who work at the level of trainee and people in such a position are known by a variety of terms such as article clerk, supervisor, junior, senior and staff accountant among others. The term used in this paper is trainee and it encapsulates all those accountants who are working toward their chartered accountant designation or who have it and have not yet reached the status of manager. Managers are those who have obtained their professional designation and have been promoted to management, for example, being in charge of a client base or a team of trainees. Partners are those who have served as trainees and managers and ultimately have become owners of the firm.

The authors contacted, by telephone, partners at a number of accounting firms in the Halifax Regional Municipality, Nova Scotia and in Saint John and Fredericton, New Brunswick to explain the study and to obtain permission to collect data in their organizations. A follow-up e-mail was sent to partners with proposed dates for site visits. Once dates for site visits were confirmed the firm contact was sent an electronic letter confirming the time and date of the visit, reviewing the nature and purpose of the study and soliciting participation from the accountants in that office. Individual accountants in each firm were also sent an electronic letter that indicated the time and date of the study, explained the nature and purpose of the study, and contained an invitation to participate. Those who volunteered to participate were offered a chance to enter a draw for one of three prizes ($100 gift certificates for meals at local restaurants).

Subsequently one of the authors visited the main office of each participating firm to administer and collect surveys from volunteers. Participants completed the learning activities survey, the learning barriers survey and the learning facilitators survey. The learning activities survey assessed learning strategies and respondents were asked to what extent they agreed or disagreed with each of 11 statements on learning strategies. Responses were ranked on a five-point scale (1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree). A twelfth item asked respondents to indicate the extent to which they engaged in e-learning for job-related knowledge and skills. Responses were ranked on a five-point scale (1 = not used at all, 2 = used very little, 3 = used somewhat, 5 = used a great deal).

The learning barriers survey asked respondents to what extent they agreed or disagreed with each of 23 statements on learning barriers and the learning facilitators survey asked respondents to what extent they agreed or disagreed with each of 12 statements on learning facilitators. Responses to items on these latter two surveys were ranked on a five-point scale (1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree).

Participants also completed a demographic survey that provided data on issues such as rank in the firm. These surveys were completed by small groups of accountants within approximately 40 minutes.

This paper is part of a broader, ongoing study that considers a variety of learning issues. One exercise that was completed, although its results are not reported in this particular paper, was designed for administration to a group of participants under formal and consistently applied guidelines. Further, the authors felt that personal, site visits would increase the level of participation. Consequently personal visits were made to accounting firm offices and data were collected from small groups.

Results
Of the 25 offices contacted 19 participated and surveys were completed by 143 accountants, 76 (53 percent) men and 67 (47 percent) women. Of these, 69 (49 percent) were trainees, 41 (29 percent) were managers and 32 (22 percent) were partners. Respondents had an average age of 32.4 years (ranging from 21 to 64 years) and average full-time, work experience in public accounting of 8.6 years (ranging from one to 41 years).

Table I presents the means and standard deviations for scores on workplace learning strategies by rank and for the total sample. The results in Table I indicate that accountants make use of a variety of learning strategies. The most favored strategies include learning from completing new tasks, learning by applying past experience, and learning from working with others. Learning was less likely to occur from strategies such as formal meetings with colleagues and in-house professional-development programs. A multivariate analysis of variance indicated statistically significant differences among the three groups for the 12 learning strategies (Wilks' Lambda, $F = 2.25$, df $= 24/244$, $p < 0.0012$). One-way analyses of variance indicated two statistically significant different scores for two learning strategies. The first difference was number 9 "I learn from reading" ($F = 5.66$, df $= 2/133$, $p < 0.005$). *Post-hoc* analysis indicated that partners ($p < .002$) and managers ($p < 0.04$) scored significantly higher than trainees on learning from reading. The second difference was for number 10 "To what extent do you use e-learning to acquire needed knowledge and skills?" ($F = 8.41$, df $= 2/133$, $p < 0.0003$). *Post-hoc* analysis indicated that trainees scored statistically significantly higher on e-learning usage than did managers ($p < 0.02$) and partners ($p < 0.0002$).

Table II presents the means and standard deviations for scores on workplace learning barriers by rank and for the total sample. The barriers to learning for accountants that appear greatest include not having sufficient time for learning at work, and the fact that having too many jobs to do at work makes learning difficult. The barriers that were least in evidence included, not having access to resources, not getting learning opportunities because increased competence threatened the supervisor, and viewing learning as unimportant. A multivariate analysis of

Learning strategy	Trainees			Managers			Partners			Total		
	n	M	SD	n	M	SD	n	M	SD	n	M	SD
1. I learn from completing new tasks in my work	68	4.72	0.48	42	4.61	0.49	32	4.56	0.67	142	4.65	0.54
2. I learn by applying past experience	68	4.52	0.66	41	4.49	0.55	32	4.47	0.67	142	4.50	0.63
3. I learn informally from working with others	68	4.47	0.67	41	4.49	0.51	32	4.67	0.67	142	4.47	0.63
4. I learn from thinking about past events and activities	68	4.33	0.68	41	4.17	0.70	32	4.40	0.71	142	4.30	0.69
5. I learn from researching solutions to problems	68	4.26	0.76	41	4.34	0.73	32	4.25	0.91	142	4.28	0.78
6. I learn from external development programs such as those from ICANS	67	3.96	0.96	41	3.87	0.92	32	3.94	1.10	141	3.92	0.98
7. I learn from my intuition	68	3.53	0.88	41	3.51	0.74	32	3.56	0.98	141	3.92	0.85
8. I learn from observing how others work	68	3.95	0.90	41	3.95	0.67	32	3.80	0.98	141	3.92	0.85
9. I learn from reading	68	3.63	0.99	41	4.02	0.69	32	4.25	0.72	142	3.88	0.88
10. To what extent do you use e-learning to acquire needed knowledge and skills?	66	4.26	0.90	40	3.65	1.46	32	3.28	1.37	139	3.86	1.25
11. I learn from formal meetings with colleagues	68	3.72	0.91	41	3.95	0.74	31	4.00	1.00	141	3.85	0.88
12. I learn from in-house professional-development programs	68	3.82	0.94	41	3.78	1.17	31	3.42	1.33	141	3.72	1.11

Table I.
Means and standard
deviations for scores on
workplace learning
strategies by rank

Table II.
Means and standard deviations for scores on workplace learning barriers by rank

Learning barrier	Trainees n	M	SD	Managers n	M	SD	Partners n	M	SD	Total n	M	SD
1. I do not have sufficient time at work to learn all that I need to know to do my job	67	2.92	1.38	41	2.95	1.34	31	3.13	1.31	140	2.97	1.34
2. Having too many different jobs to do makes learning at work difficult for me	69	2.68	1.32	41	2.51	1.09	32	2.78	1.38	143	2.66	1.27
3. I do not have sufficient time off to attend professional development sessions	68	2.48	1.27	41	2.19	1.25	32	2.18	1.35	142	2.34	1.29
4. My expectations for in-house job-related training are not usually met	69	2.34	1.19	41	1.97	1.04	29	2.17	0.80	140	2.20	1.08
5. I do not like the way in-house training is delivered	69	2.27	1.13	40	2.08	1.04	27	2.03	0.97	137	2.17	1.07
6. It is difficult for me to determine what I have to know to do my job	69	2.36	1.08	41	1.75	0.91	32	1.87	1.16	143	2.07	1.08
7. Knowledge obtained through professional development courses is difficult to apply in my workplace	68	2.03	1.05	41	2.09	0.89	32	1.78	0.79	142	1.99	0.95
8. I find it difficult to find someone in my workplace to mentor or coach me	68	1.66	0.97	41	2.04	1.20	30	2.56	1.30	140	1.98	1.16
9. I do not like the way external training is delivered	69	1.97	1.06	41	1.80	1.00	31	1.93	1.03	142	1.91	1.02
10. Too few knowledgeable people are available in my workplace to help me learn	68	1.64	0.91	41	1.73	0.95	31	2.45	1.36	141	1.85	1.07
11. Learning is not rewarded in my workplace	69	1.89	0.97	41	1.90	1.02	31	1.58	0.96	142	1.83	0.98
12. The cost of professional development or other training courses is prohibitive	67	1.88	1.12	41	1.63	0.94	32	1.75	1.04	141	1.78	1.05
13. I feel physically separated from my colleagues at work	69	1.81	1.04	41	1.71	0.98	29	1.62	1.05	140	1.74	1.02
14. In-house job-related training is not available	69	1.42	0.88	41	1.66	1.21	30	2.30	1.46	141	1.68	1.67
15. It is difficult for me to access the knowledge I need to know to do my job	68	1.70	0.94	41	1.49	0.64	32	1.72	1.05	142	1.65	0.89
16. Things that I learn at work are irrelevant to doing my job	69	1.52	0.91	40	1.77	0.99	32	1.56	1.18	142	1.60	1.00
17. Knowledgeable people in my workplace do not help me to learn	69	1.56	0.79	41	1.66	0.79	29	1.52	0.57	140	1.60	0.77

(continued)

Learning barrier	Trainees			Managers			Partners			Total	
	n	M	SD	n	M	SD	n	M	SD	n	M	SD
18. External job-related training is not available	69	1.55	0.85	41	1.26	0.50	32	1.87	1.21	143	1.54	0.88
19. I am personally expected to cover the costs of professional development or other training	67	1.54	1.01	41	1.27	0.77	32	1.65	1.47	141	1.49	1.08
20. The work that I do is irrelevant to my learning	69	1.50	0.83	41	1.39	0.63	32	1.41	1.01	143	1.45	0.82
21. I do not have access to learning resources, (for example, computers or libraries) in my workplace	69	1.53	1.09	41	1.32	0.52	32	1.22	0.49	143	1.40	0.85
22. I do not get learning opportunities because my increased competence threatens my supervisor	69	1.26	0.63	41	1.15	0.57	28	1.39	0.78	139	1.26	0.65
23. It is not important for me to continue to learn new knowledge and skills in my current job	69	1.13	0.34	41	1.17	0.38	32	1.09	0.30	143	1.14	0.35

Table II.

variance indicated statistically significant differences among the three groups for the 23 learning barriers (Wilks' Lambda, $F = 2.05$, df $= 46/210$, $p < 0.0004$). One-way analysis of variance indicated statistically significantly different scores for four learning barriers. The first difference was for number 6 "It is difficult for me to determine what I have to know to do my job," ($F = 4.62$, df $= 2/127$, $p < 0.012$). *Post-hoc* analysis indicated that trainees scored significantly higher than both managers ($p < 0.009$) and partners ($p < 0.03$). The second difference was for number 8 "I find it difficult to find someone in my workplace to mentor or coach me" ($F = 5.79$, df $= 2/127$, $p < 0.004$). Partners scored significantly higher than did trainees ($p < 0.001$). The third difference was for number 10 "Too few knowledgeable people are available in my workplace to help me learn" ($F = 7.51$, df $= 2/127$, $p < 0.0008$). *Post-hoc* analysis indicated that partners scored statistically significantly higher on this barrier than both managers ($p < 0.003$) and trainees ($p < 0.0002$). The fourth difference was for number 18 "External job-related training is not available" ($F = 4.67$, df $= 2/127$, $p < 0.012$). *Post-hoc* analysis indicated that partners scored significantly higher than did managers ($p < 0.003$).

Table III presents the means and standard deviations for scores on workplace learning facilitators by rank and for the total sample. Learning was most facilitated by factors such as pressure to remain current in the field, having a variety of tasks to complete, being curious, and having opportunities to informally discuss work with others. Having an opportunity to experiment with work was least likely to facilitate learning. A multivariate analysis of variance indicated statistically significant differences among the three groups for the 12 learning facilitators (Wilks' Lambda, $F = 2.58$, df $= 24/234$, $p < 0.0001$). One-way analysis of variance indicated five statistically significant different scores for learning facilitators. The first difference was for number 2 "I do a variety of tasks in my work" ($F = 3.26$, df $= 2/128$, $p < 0.05$). *Post-hoc* analysis indicated that this was a significantly higher facilitator for partners than for trainees ($p < 0.013$). The second difference was for number 8 "I have flexibility in my work routine" ($F = 7.13$, df $= 2/128$, $p < 0.002$). *Post-hoc* analysis indicated that this was significantly higher for both partners ($p < 0.0005$) and managers ($p < 0.04$) than it was for trainees. The third difference was number 9 "I have autonomy in my work" ($F = 3.87$, df $= 2/128$, $p = 0.03$). *Post-hoc* analysis indicated that this was significantly higher for both partners than it was for trainees ($p < 0.007$). The fourth difference was for number 10 "There are formal in-house courses available to help my learning" ($F = 6.73$, df $= 2/128$, $p < 0.002$). *Post-hoc* analysis indicated that trainees scored statistically significantly higher on facilitator number 10 than did managers ($p < 0.0005$) and managers scored significantly higher than did partners ($p < 0.03$). The fifth difference was for number 12 "I have an opportunity to experiment with my work" ($F = 3.59$, df $= 2/128$, $p < 0.04$). *Post-hoc* analysis indicated that this was a significantly higher facilitator for partners than trainees ($p < 0.009$).

Conclusions and recommendations

Findings are consistent with previous studies (Doyle and Young, 2003a; Eraut, 2004; Lans *et al.*, 2004; Murphy and Young, 1995; Rowden and Ahmad, 1999) that indicate people engage in a variety of workplace learning strategies, but the most favoured strategies are informal. Specifically, learning from completing new tasks, learning

Learning facilitator	Trainees			Managers			Partners			Total		
	n	M	SD	n	M	SD	n	M	SD	n	M	SD
1. I must learn continually to remain current in my field	69	4.81	0.43	41	4.88	0.33	32	4.94	0.24	143	4.85	0.37
2. I do a variety of tasks in my work	69	4.49	0.66	41	4.65	0.48	32	4.84	0.57	143	4.61	0.60
3. I believe that curiosity helps learning at work	69	4.60	0.49	41	4.44	0.59	31	4.54	0.57	142	4.54	0.54
4. I have lots of opportunities to informally discuss work issues with colleagues at work	69	4.52	0.72	41	4.49	0.71	32	4.18	1.33	143	4.43	0.89
5. External formal courses (e.g., ICANS, ASCA) help me learn	69	4.49	0.74	41	4.14	0.85	32	4.15	1.11	143	4.31	0.87
6. Overall the climate of my workplace helps me learn	69	4.29	0.86	41	4.19	0.81	32	4.21	0.83	143	4.24	0.83
7. I am evaluated partly on my ability to learn up-to-date knowledge	68	4.22	0.71	41	3.95	0.89	32	4.06	0.91	142	4.10	0.82
8. I have flexibility in my work routine	68	3.76	1.05	41	4.24	0.73	32	4.56	0.61	142	4.07	0.93
9. I have autonomy in my work	67	3.73	1.03	39	3.97	0.87	32	4.44	0.98	139	3.96	1.01
10. There are formal in-house courses available to help my learning	69	4.17	1.08	41	3.90	1.47	31	3.03	1.64	142	3.84	1.40
11. Knowledgeable people make required job knowledge explicit to me	65	3.72	0.80	40	3.90	0.71	29	3.76	0.95	135	3.78	0.80
12. I have an opportunity to experiment with my work	68	3.22	1.07	41	3.46	1.00	32	3.94	1.01	142	3.45	1.06

Table III.
Means and standard
deviations for scores on
workplace learning
facilitators by rank

from experience, and from working with others are the learning strategies in this study that result in the greatest impact on learning. In fact, social relationships have been shown to be a significant factor in the learning of entry-level accountants (Eraut *et al.*, 2003). Also, more formal strategies, for example, learning from in-house, professional-development programs are less favored than informal strategies.

This is an interesting finding given that public accounting firms and the accounting profession spend considerable time and effort on formal development programs. Also, the Institute of Chartered Accountants of Nova Scotia (ICANS) has a mandatory professional development program and members must file a professional-development report each year indicating their hours of professional development activities. Although there is considerable emphasis on formal learning, the profession also recognizes that informal learning activities are important. For example, ICANS does allow informal learning activities to be included in members' professional activities reports. This is recognition that formal learning activities do not cover all areas of learning and/or some members might prefer informal to formal learning.

Public accounting firms can also encourage informal learning activities by ensuring that the requisite resources are available to staff members, for example, reading materials and opportunities and time for staff to discuss new developments in the field. Also, the allocation and structuring of work and the encounters and relationships with people are important to this process and should be considered in work assignments by managers and partners.

This tendency to prefer informal learning has an implication for in-house and other professional trainers. Perhaps there could be more emphasis placed on assisting partners and managers in developing their roles as coaches and mentors, a role that Eraut *et al.* (2003) indicated was useful in the development of entry-level accountants in the UK.. Managers and partners could then ensure that staff members have a wide variety of work experiences and contact and feedback that will help them learn from these experiences.

A statistically significant finding was that trainees, who, by virtue of rank, are generally younger than managers and partners, use e-learning more than managers and partners. This finding is consistent with the notion that younger generations tend to have better technology skills (Goodridge and McGee, 2002) and are more likely to adopt technology than are older workers (Morris *et al.*, 2005). E-learning can range from searching the internet informally for information to interactive, live classes with voice-over-internet protocol. It does have the advantage of being location independent and is often time independent. One implication of this for public accounting firms is that in-house and professional trainers can act as learning consultants to determine learning needs and connect staff members to the right resources and help them develop the skills to use those resources. Another implication for both the firms and the profession is that they need to investigate the expansion of e-learning in their formal training and professional development programs.

The most prominent barrier for accountants is not having sufficient time for learning at work, which is consistent with previous research (Doyle and Young, 2003b; Lohman, 2000; White *et al.*, 2000). Learning new knowledge is a key component of a public accounting firm's business model. This time barrier needs to be addressed. Both firms and the profession could assist in offering time-management courses, searching out learning opportunities both formal and informal learning and assisting in

improving the quality and quantity of informal learning opportunities. Ironically, a barrier to learning was the fact that accountants believe that having too many jobs to perform makes learning difficult despite the fact that the dominant learning facilitator was learning from completing new tasks in their work. Trainers and others responsible for professional development could emphasize the role and importance of completing new tasks as a source of learning. More importantly, the partners responsible for policy issues in firms need to discuss workload issues so that learning is enhanced. This could involve reviewing issues such as team complements, work loads, work tasks and performance measurement tools.

Four barriers resulted in a statistically significant finding. Trainees were more apt to have difficulty developing their learning needs. The implication is that firms need to assist them with this process. The other three significant findings related to partners. Partners were more apt to indicate that there were too few knowledgeable people available in their workplace to help them learn, that they had difficulty finding mentors and coaches and finding external job-related training. Further, research studies have found that the lack of expert guidance, i.e. simply not having skilled and knowledgeable people available who can assist others with their learning is a barrier to learning (Billett, 1995; Doyle and Young, 2003b; Munro *et al.*, 2000; White *et al.*, 2000). This is an interesting dilemma in this study as the partners are at the top level of the organization. Having too few knowledgeable people available to assist learning could stem from a workplace where there are other knowledgeable people, but they are in different offices of the firm. Ways to provide interaction for the partners could be investigated and could range from partner retreats to e-mail discussion groups. This is an area where those responsible for human resource development at a particular firm could consult with the partners and help them to develop a learning strategy. For partners at smaller firms, perhaps the same approach could work, but with partners at other small firms who were non-competitors. The profession could undertake to help provide this service.

Knowledge is a key asset for public accounting firms and it is absolutely essential that partners, managers and trainees keep up-to-date with changes in this required knowledge, especially in the areas of tax and accounting and auditing standards. Consistent with previous research, the main facilitators of learning mentioned by respondents were pressure to remain current in the field, having a variety of tasks to complete (Billett, 1995; Munro *et al.*, 2000), being curious (Reio and Wiswell, 2000), and having opportunities to informally discuss work with others (Day, 1998). Again, informal approaches such as work allocation and rotation, fostering a sense of curiosity and providing informal networking opportunities are all avenues for human resource departments to promote and to assist managers and partners in providing a workplace environment that encourages these avenues of informal learning for themselves and the trainees.

There were five significant differences in the analysis of facilitators. Trainees were less likely to do a variety of tasks in their work, have autonomy in their work, have flexibility in their work routine and have an opportunity to experiment with their work. They did, however, have more formal in-house learning opportunities. It seems as if formal learning opportunities are stressed more at the junior level. However, all levels indicated a preference for informal learning. An implication is that firms could review

work rotation, work content and organization and increase the opportunities for trainees to learn informally as well as formally.

In conclusion, public accounting firms and the trainees, managers and partners of these firms invest a significant amount of time and energy into formal learning activities. However, this study indicates that the most often-mentioned learning strategies are informal activities that assist firm members in learning from experience and from others. A possible response to this finding is to encourage informal learning and to provide appropriate learning activities and feedback so that informal learning is maximized and complements the existing formal system. E-learning is used more by articling trainees and over time as these trainees become managers and partners, e-learning's role may well increase. This trend needs to be taken into account when a firm's learning strategy is developed.

Future research could focus on several areas, for example, it could examine the efficacy of accountants' formal and informal learning strategies. Further, how e-learning is useful for public accounting firms and how it can be appropriately managed and utilized could be examined.

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