European Journal of Training and Development

Canadian chefs' workplace learning

Paulette Cormier-MacBurnie Wendy Doyle Peter Mombourquette Jeffrey D. Young

Received 16 January 2015
Revised 22 May 2015
Accepted 17 June 2015

Canadian chefs' workplace learning

Paulette Cormier-MacBurnie, Wendy Doyle, Peter Mombourquette and Jeffrey D. Young
Department of Business and Tourism, Mount Saint Vincent University, Halifax, Canada

Abstract

Purpose – This paper aims to examine the formal and informal workplace learning of professional chefs. In particular, it considers chefs' learning strategies and outcomes as well as the barriers to and facilitators of their workplace learning.

Design/methodology/approach – The methodology is based on in-depth, face-to-face, semi-structured interviews with 12 executive chefs from a variety of restaurant types. Chefs were asked questions that focused on how they learned, the learning outcomes that they experienced and factors that inhibited or facilitated their learning.

Findings – Findings suggest that the strategies, outcomes, barriers and facilitators experienced by professional chefs are similar in many respects to those of other occupational/professional groups. However, there were some important differences that highlight the context of chefs' workplace learning.

Research limitations/implications – The sample, which is relatively small and local, focuses on one city in Canada, and it is limited in its generalizability. Future research should include a national survey of professional chefs.

Originality/value – Using a qualitative approach, this in-depth study adds to the literature on workplace learning, strategies, outcomes, barriers, facilitators and context factors by addressing a relatively understudied profession.

Keywords Workplace learning, Professional chefs

Paper type Research paper

Introduction

Workplace learning is important to managers and organizations because more than 80 per cent of workers engage in job-related informal learning (Livingstone, 2010). Further, workplace learning contributes to a firm's ability to be innovative and grow (Kock, 2007), to improve competitive advantage (Kock, 2007) and to facilitate organizational change (Doyle and Young, 2007; Jacobs and Russ-Eft, 2001). Workplace learning is also important for organizations that face labour shortages, skills shortages and new and enhanced skill requirements for employees (Goldenberg, 2006).

Much workplace learning research has examined various professional/occupational groups, for example, school teachers (Lohman, 2000), human resource managers (Crouse *et al.*, 2011), lawyers (Hara, 2001), small business owners/managers (Doyle and Young, 2005a; Doyle and Young, 2005b), accountants (Hicks *et al.*, 2007) and managers in knowledge-based industries (Doyle and Young, 2007). More recently, other groups such as aviation instructors (Wofford *et al.*, 2013) and police officers (Slade, 2013) have been considered in terms of their workplace learning. However, there is a relative paucity of

European Journal of Training and Development
Vol. 39 No. 6, 2015
pp. 522-537

2046-9012
DOI 10.1108/EJTD-01-2015-0003

research on the workplace learning of professional chefs, especially in a Canadian context.

Examining the workplace learning of chefs in a Canadian context is reasonably important given the following factors. First, professional chefs represent an important segment of the tourism sector in Canada. Although no data were located that provided the precise numbers of chefs employed in Canada, in 2009, there were 959,000 people employed in the food and beverages sector of the tourism industry, approximately 5 per cent of the Canadian workforce (Highlights, 2009). Further, in North America, some surveys suggest that women account for approximately 20 per cent of professional chefs (Decker, n.d.). However, there are numerous and growing job opportunities for chefs, given the growth of the tourism and hospitality sectors in Canada (Canada's restaurant industry, 2012; Chefs – Service Canada, 2013). Second, industry experts such as Baskette (2001), Carroll (2008) and Hayes *et al.* (2012) have highlighted the importance of learning to chefs and the importance of the chefs' leadership roles in the learning of others in the industry. Third, chefs work in contexts that are quite different from the contexts of other professional groups, for example, teachers or accountants – working conditions can be cramped, hot, highly stressful and with long hours and fluctuating demands within the work day (Fine, 1996; James, 2006). Fourth, cooking has become a popular pastime and many chefs have become celebrities and they are seen with their own cooking shows and product lines (Sobeys and Jamie Oliver launch […], 2013) and there are various televised competitions for professional and amateur chefs (Abraham, 2014). Lastly, although chefs have been examined in their workplaces (Fine, 1996) and some research has focused more specifically on apprentice chefs (Cornford and Gunn, 2006; James, 2006), Canadian chefs have been understudied in terms of their workplace learning.

This paper initially presents an overview of workplace learning and various focal points of research. It then overviews the literature relevant to chefs and their workplace learning and identifies several guiding questions for this study.

Workplace learning

Workplace learning is a broad concept that refers to "a process whereby people, as a function of completing organizational tasks and roles acquire knowledge, skills, and attitudes that enhance individual and organizational performance" (Hicks *et al.*, 2007, p. 62). Workplace learning research, in a general sense, has taken many directions, but several areas that continue to be developed include strategies for, outcomes of, barriers to and facilitators of workplace learning (Crouse *et al.*, 2011; Doyle *et al.*, 2012).

Some of the research on workplace learning of chefs has focused on professional chefs (Cormier-MacBurnie, 2010), but other research has examined learning of apprentice chefs (Cornford and Gunn, 2006). Indeed, a variety of approaches to workplace learning by such chefs has been identified by several writers. For example, formal learning (Cormier-MacBurnie, 2010; Cornford and Gunn, 2006; Lin and Bound, 2011; McDermott and Carter, 2010; Weyant, 2011), non-formal learning (Cormier-MacBurnie, 2010), informal learning (Cormier-MacBurnie, 2010; Lin and Bound, 2011; McDermott and Carter, 2010; Weyant, 2011) and incidental learning (Weyant, 2011) are all important components of apprentice chefs' learning, and such learning is valued by chefs (Cormier-MacBurnie, 2010). Some of the research concerning apprentice chefs has examined learning strategies, learning outcomes, as well as barriers to and facilitators of workplace learning. However, the focus of this study is the

learning strategies, learning outcomes, as well as barriers to and facilitators of workplace learning of professional chefs in a Canadian context.

Learning strategies

Learning strategies or activities are "ways that people acquire knowledge, skills, and attitudes" (Crouse *et al.*, 2011, p. 41) and numerous learning strategies have been examined by many researchers. In a review of the relevant literature, Crouse *et al.* (2011) identified more than 30 learning strategies. Recently, van Rijn *et al.* (2013, p. 610) described three informal learning activities including, keeping up-to-date, asking for feedback from supervisors and knowledge sharing. Many of these strategies are generic in nature and are used by various professional/occupational groups. For example, learning from doing work is a frequently identified strategy (Doyle *et al.*, 2012; Fuller and Unwin, 2005; Hicks *et al.*, 2007). Further, learning strategies have been categorized as formal, planned and structured courses that are instructor led and often institutionally based or informal, planned or unplanned learning that is learner centred and more under the control of the learner than is formal learning and it occurs outside the classroom. Incidental learning is a form of informal learning that occurs as a result of completing a task or job and frequently people are unaware that they are learning (Marsick and Watkins, 2001). Numerous researchers suggest that learners tend to use the informal strategies to a greater extent than they use formal strategies (Crouse *et al.*, 2011; Cunningham and Hillier, 2013). However, a balance between the use of formal and informal strategy use has been suggested by Van der Heijden *et al.* (2009).

Specific learning activities/strategies identified for chefs included completing specific tasks, usually as part of the structure of the kitchen in which they work (Cormier-MacBurnie, 2010; Lin and Bound, 2011; Weyant, 2011), engaging in communities of practice and sharing experiences (Cormier-MacBurnie, 2010; Lin and Bound, 2011; Weyant, 2011) and working with knowledgeable others such as supervisors (Cormier-MacBurnie, 2010; Lin and Bound, 2011; Weyant, 2011). Other learning strategies included learning from experience, making mistakes, trial and error (Cormier-MacBurnie, 2010), observation (Cormier-MacBurnie, 2010; Lin and Bound, 2011) and reflecting on prior knowledge (Cormier-MacBurnie, 2010; Lin and Bound, 2011; Weyant, 2011), taking courses (Weyant, 2011), direct training such as learning to use new equipment (Weyant, 2011), attending conferences (Weyant, 2011), putting on demonstrations (Carroll, 2008) and attending meetings (Carroll, 2008; Weyant, 2011). In many respects, the learning strategies of chefs mirror those of other professions and organizations.

Learning outcomes

Learning outcomes "are those things that occur as a result of the actual workplace learning" (Crouse *et al.*, 2011, p. 44). Crouse *et al.* (2011) identified 19 types of learning outcomes. More recently Margaryan *et al.* (2013) discussed conceptual knowledge, procedural knowledge, locative dispositions and enculturation knowledge as outcomes. As with the learning strategies, some learning outcomes, for example, job-related knowledge and skill, are generic and arise across various groups and/or studies.

Outcomes of chefs' learning included things such as increased efficiency (Cormier-MacBurnie, 2010) as well as professional knowledge and skill (Lin and Bound,

2011). Quality learning is positively associated with satisfaction with work and with the learning itself, which thus affected decisions by apprentice cooks to stay in or leave their field (McDermott and Carter, 2010). Again, some outcomes of learning discussed by others are also identified by chefs.

Barriers to learning

Barriers to workplace learning are "those factors that prevent learning from starting, impede or interrupt learning or result in learning being terminated earlier than it might have been ordinarily" (Hicks *et al.*, 2007, p. 64). Crouse *et al.* (2011) identified 45 barriers, most of which appeared to be shared among various groups. For example, lack of time (Crouse *et al.*, 2011; Hicks *et al.*, 2007), high workloads (Crouse *et al.*, 2011; Hicks *et al.*, 2007; Lloyd *et al.*, 2014) and lack of managerial support (Crouse *et al.*, 2011; Lloyd *et al.*, 2014) have been reported for various groups.

For chefs, barriers included negative feedback from supervisors, which often provoked feelings of fear in learners (Cormier-MacBurnie, 2010). Some employers have found difficulty in supporting the learning of apprentice chefs, in particular, through economic pressures and reduced staffing (McDermott and Carter, 2010). Highly structured kitchens often limited the learning opportunities for apprentices (McDermott and Carter, 2010). Contextual factors including standardized menus and practices can inhibit learning opportunities (McDermott and Carter, 2010). However, a major barrier for apprentice cooks is that some supervising chefs do not know and understand their roles as "trainers" and thus are not effective in those roles (McDermott and Carter, 2010). In some respects, the barriers faced by chefs are similar to those faced by others, especially that of lack of managerial and organizational support.

Learning facilitators

Numerous facilitators have been identified by various researchers, for example, Crouse *et al.* (2011) identified more than 30 facilitators in a review of the literature. However, a study of IT professionals identified 43 learning facilitators (Crouse *et al.*, 2015). Others such as van Rijn *et al.* (2013) examined informal learning and highlighted the links between learning and career motivation and self-construal and learning. As with strategies and barriers, some facilitators are generic and have been and continue to be important for people's learning. For example, doing the work, learning with and from others and having managerial and organizational support tend to be prominent facilitators (Lloyd *et al.*, 2014).

Chefs' learning is facilitated in similar ways to those of others, for example, through feedback from supervisors, rewards for learning and being motivated to be efficient (Cormier-MacBurnie, 2010), funding and/or top management support for training (Weyant, 2011), access to needed information (Weyant, 2011), company support for professional association activity (Weyant, 2011), working with others (Weyant, 2011) and having some autonomy (Lin and Bound, 2011). The supervising chefs are important to apprentice cooks because of the learning opportunities and feedback that they provide (McDermott and Carter, 2010). However, the apprentice chefs are also an important part of the learning process; they are active participants and can help to develop their own learning by being engaged (Lin and Bound, 2011).

There are numerous overlaps among the various strategies, outcomes, barriers and facilitators across various professional/occupational groups. However, the issue of

learning must be understood in terms of the context in which it takes place (Colley *et al.*, 2003; Eraut, 2004).

Learning context

Variability within and between groups is seen in terms of factors such as rank and organizational hierarchy that create context and differences. For example, trainees tended to favour e-learning to a greater extent than did managers and partners in accounting firms (Hicks *et al.*, 2007). Further, partners in accounting firms found greater barriers to learning than did trainees and managers because of a lack of knowledgeable people to help them. Gender also becomes a factor in the learning context. For example, men and women in the hotel industry had statistically significantly different scores for six learning barriers (Doyle *et al.*, 2012). Business, profession and/or industry type create context. For example, with respect to barriers Doyle *et al.* (2012) reported that hotel employees did not find a lack of time to be a barrier to their learning, a finding different from human resource managers (Crouse *et al.*, 2011) and accountants (Hicks *et al.*, 2007) who found that lack of time was a significant learning barrier.

Fine (1996), James (2006) and Lin and Bound (2011) have examined chefs' contextual issues such as space, routine and tempo, workflow, hierarchy and division of labour, and the work of chefs has been characterized as demanding and stressful with long hours (Cormier-MacBurnie, 2010). Contextual factors such as frequently changing menus permit learning opportunities for chefs by allowing them to exhibit their creativity (McDermott and Carter, 2010). Apprentice chefs also learned "about context-specific workplace demands, processes, and relationships" (Lin and Bound, 2011, p. 6). All of the foregoing contextual factors can seemingly have a negative or positive impact on chefs' workplace learning.

In summary, the purpose of this paper is to address the following questions:

Q1. What are the workplace learning strategies that are favoured by professional chefs?

Q2. What are the outcomes of workplace learning identified by professional chefs?

Q3. What factors do professional chefs identify as barriers to their workplace learning?

Q4. What factors do professional chefs identify as facilitators of their workplace learning?

Q5. How is context a factor for professional chefs?

Method

Participants

Participants in this study were 12 professional chefs at restaurants in the Halifax Regional Municipality, Canada. Table I presents an overview of the study's participants in terms of their gender, years of experience, numbers of full-time employees supervised and the type of restaurant.

Procedure

A search of the Internet for the region and its restaurants and their chefs identified more than 500 restaurants. Forty-six restaurants were purposively selected by the first author from the initial 500 restaurants, a number which permitted an acceptable level of variability of restaurant type (e.g. hotels, family-style, high-end). Personal letters of invitation to participate in the study were mailed to the attention of the chefs at their

restaurants. The first author then completed follow-up telephone calls to assess the chefs' willingness to participate in the study. Ultimately, 12 chefs were interviewed, which provided a sample that reflected restaurant types. The participants were nine men (75 per cent) and three women (25 per cent), which is reasonably reflective of the gender composition within the industry. As this was a preliminary study, the sample was limited to 12 participants, the point at which little new data began to emerge from the interviews.

Interviews

Face-to-face interviews were conducted in the chefs' place of business. Interviews ranged from 45 to 95 minutes in length and were audiotaped and transcribed verbatim. Interviews consisted of 3 closed-ended questions and 18 open-ended questions. Follow-up questions such as, "Can you tell me more about that?" and "Can you give me an example?" were asked when and where appropriate. Key questions focused on three areas: the learning of the interviewees; the impact of their learning on the organization; and their role in the learning of their subordinates. Also a demographic survey was administered. The interview guide was reviewed by the four authors and was approved by the University Research Ethics Board of the authors' home university.

Results and discussion

The first part of the survey set the stage for learning by asking participants, "How important is it for you to learn new skills and knowledge in today's environment?" Participants responded to a five-point scale in which 1 = very unimportant through to 5 = very important. All participants (12/12, 100 per cent) gave learning a score of 5, so learning is very important to chefs. This finding is consistent with reports that learning is important for chefs (Baskette, 2001; Carroll, 2008; and Hayes *et al.*, 2012) as well as for others including small business owners (Doyle and Young, 2007), hotel employees (Doyle *et al.*, 2012), human resource managers (Crouse *et al.*, 2011) and managers in knowledge-based industries (Doyle and Young, 2007).

Second, participants were asked, "Why is it important for you to learn?" Eleven of 12 (91.6 per cent) chefs responded that learning was important in order to keep up with industry trends and changes. Responding to change was ell exemplified by Participant 7 who said:

Gender	Years of experience as a chef
Men = 9 Women = 3	M = 12.08 SD = 7.41 Range = 3–25
Type of restaurant	**Number of full-time employees**
Family = 5 Casual = 4 High-end = 2 Café/Bistro = 1	M = 15.16 SD = 14.94 Range = 3–56

Table I.
Demographic overview of participants

> […] very important because the trends are always changing, um, when you look at even something like the cronut […] it's a hybrid croissant donut that came out just over a year ago, but it exploded and people are always wanting to make their own version of it.

These findings are consistent with those of other studies, keeping up with change was important for human resource managers (Crouse *et al.*, 2011). This paper now examines the learning strategies, outcomes, barriers and facilitators of professional chefs.

Learning strategies

To identify learning strategies, participants were asked, "Generally, how do you go about developing work-related knowledge and competencies?" Participants identified eight learning strategies; the first, identified by six participants, was labelled, "Independent learning through research and reading". However, this strategy had two separate elements. The first element is a low-tech solution – reading existing cookbooks. Several participants commented on their use of cookbooks, but Participant 5 said it best, "Cookbooks, yep […] I have a thousand (laughs), a thousand books that I still look through on a daily basis and that's really where I pull most of my knowledge from". The second element, identified by three participants, is an e-learning strategy focused on internet searches, blogs, podcasts and professional sites. Participant 8's comments perfectly expressed this strategy, "I wanna do an Egg Roll today, but I want to put something funky in it, but I don't know how to make Egg Roll dough. Grab the IPad".

The second strategy, learning with and from others, identified by four participants was best exemplified by Participant 6 who said, "You learn from everyone. You can learn things from, anywhere from the dishwasher to your top of the line cooks". The third strategy was learning by taking courses and Participant 1 stated:

> Ah, I would go to my Director of Operations or my ah PR Director and if I was interested in taking a course that I found outside, generally if it's in my scope of what they think my job is they will pay for it and send me.

The fourth strategy, participating in competitions, identified by two participants was described by Participant 2, "[…] competition is a very healthy way to continue to explore and develop your culinary skills". The fifth strategy, learning from dealing with everyday issues and problems and learning from experience, was described by Participant 10:

> You're always gonna have a curve ball thrown at you […] every day is a little bit different even though you might be cooking the same food everyday […] I think having good problem solving skills is helpful and then also remembering kind of how you've dealt with these situations and ah, learning from your experiences; and then trying to tweak them, or, or ah modify how you react to certain situations so that, that you can get the best outcome possible I guess.

The sixth strategy, trial and error, was identified by Participant 11:

> Ah, usually it's more or less trial and error. Say there's a new recipe or something I'm just making up. It's not necessarily going to turn out the first time […] but we become a little flexible too, so that we can try out new things and not always expect them to turn out the first time.

The seventh strategy, using the latest equipment, was discussed by Participant 2, "We continue to buy modern equipment so that way we can continue to learn […] how the rest of the world is using different things".

The eighth strategy, eating in different restaurants, was mentioned by Participant 12:

> Going to different cities, going to different countries, seeing what they're doing. Eating in all kinds of you know restaurants, whether it be you know Japanese or Korean or Spanish […] it just shows me different techniques, different foods, different ingredients.

Professional chefs use a mix of formal and informal learning strategies, although informal ones tended to be used more than formal ones, findings consistent with those for other groups (Crouse *et al.*, 2011; Doyle *et al.*, 2012; Hicks *et al.*, 2007). Research on trainee or apprentice chefs also suggested a variety of formal and informal strategies, with greater mention of the informal than the formal. Indeed, completing tasks, working with others, trial and error were the common strategies identified by several researchers (Carroll, 2008; Cormier-MacBurnie, 2010; Lin and Bound, 2011; Weyant, 2011). Strategies described in this study such as taking courses and learning to use new equipment were mentioned by others in the cooking profession (Weyant, 2011).

Context becomes an issue driving learning for chefs, given the rapid changes in the cooking profession and the need to keep up with emerging trends. Consequently, the use of independent research electronically and/or through the use of existing cookbooks is not surprising. Although other groups are affected by change in their work environments, it seems that the change experienced by chefs is faster and less predictable than one might expect for an accountant and changing tax laws or human resource managers and changes in human rights legislation. Further, the opportunity to engage in competitions as learning opportunities is not always afforded to other occupational/professional groups.

Learning outcomes

With respect to learning outcomes, participants were asked, "What are the outcomes of your formal and informal learning for the organization? For yourself?" Chefs' learning outcomes related to several broad areas. First, that which the chef learns comes back to the kitchen to be part of the learning of co-workers, second is restaurant performance, the third outcome is personal attributes such as self-efficacy and a fourth outcome was that of changed ways of interacting with others. The fifth outcome was obtaining a credential and the last outcome referred to business-management impacts.

Seven chefs spoke of sharing their learning with their staff members, an outcome expressed by Participant 4:

> Well, when I learn something new, like say we're doing a new menu, um, my job is to come back and after learning the menu to train everybody here how to do that menu. Um, now there's flow down. I've got my Sous Chefs who I train, and then my Sous Chefs go out and train the, the line, the Culinary Cooks, so I like to coach and train by standing beside someone and actually doing it with them.

A second outcome, restaurant performance, firstly providing guests what they want and secondly keeping the restaurant thriving, was described by Participant 7:

> […] here it is about the guest. They drive the sales and they drive us being open, so it's all about pleasing them and um, maybe taking one of those techniques and not necessarily using it completely on a dish, but maybe as a component […].

Then Participant 11 said, "[…] so then the outcome is that we have something exciting for the customers, which creates more business I think for the restaurant".

A third outcome, having confidence to perform, was discussed by Participant 9:

> School wise I've learned a lot […] they teach you the base and it's almost like an art I would say, they will show you the technique of how to mix your paint, and how you put that on a canvas is totally up to you. So, where imagining brings you is how you succeed. If you have the passion and the hard work to go with it, you'll go very far.

A fourth outcome, changed ways of interacting with others, in particular showing improved patience with others, was provided by Participant 10:

> We're a lot more patient with our staff […] they've been given more opportunities if they do have an issue that you know, it's not, doesn't mean that their time here is over. Often we've given people second chances and even third chances you know and ah, couple times it's worked out. Couple of times it hasn't […].

A fifth outcome was the receipt of a credential. Participant 3 commented:

> Oh, well, I mean, the Red Seal of course obviously has a huge impact on the operation, um as it looks good on the operation to have a Red Seal Chef. Um, and it allows me to you know, tell my clients that I have a general knowledge of, of food.

The sixth outcome, noted by Participant 12, related to running the business as opposed to the technical side of learning to be a chef:

> I'm trained as a Chef, so I mean obviously that plays a big role. I mean it is a business, and it is a kitchen, but you have to learn all kinds of different, there's all different aspects to, other than the kitchen, like working in the kitchen. Like there's HR, which is huge, which I've learned along the way, um, accounting, time management, there's all different things that ah, that I've learned over the years. I mean school only prepared me to use a knife. It didn't prepare me for all the other things that came along the way.

Chefs experienced a variety of learning outcomes, but the main outcome tended to be learning new knowledge and skill and all were similar to outcomes described in the workplace learning literature. Organizational outcomes such as increased sales have been described by Doyle and Young (2005b), personal outcomes such as increased confidence and increased patience have also been identified by Doyle and Young (2005b) and interpersonal outcomes were described by Day (1998).

Contextually, what appears to be different for the chefs and their learning outcomes is that there is a strong notion of shared and extended learning. Many chefs viewed their own acquisition of knowledge and skill in terms of what could be passed along to others in their kitchens. A notion of cascading learning emerges in which chefs initially learn, but this increased knowledge or skill is not the main outcome. The main outcome is the learning that flows down to sous chefs, to cooks and to others in the kitchen. This form of learning and its outcomes is very similar to that of hierarchical cascade training whereby "the training follows the vertical structure of the organization, usually starting with upper management levels and moving downward through the ranks of employees" (Jacobs and Russ-Eft, 2001,

p. 500). In essence, the main outcome is the enhanced learning of others that leads to change, for example developing a new menu.

Learning barriers

To address learning barriers, participants were asked, "What kinds of things prevent or inhibit you from learning workplace knowledge and skills?" Participants identified four barriers to learning. The most frequently cited barrier was a lack of time, mentioned by five of the twelve participants, best exemplified by Participant 1 who said:

> Probably time. Like, this job, it's so busy, like we work 12-14 hour days. And they're full days. There's not a lot of time to really, like I've had to pass up on a lot of opportunities, just cause I just couldn't go.

A second barrier, having too much to do, was cited by two participants, Participant 11 felt that the extra workload from staff shortages due to sickness or lack of qualified staff was a barrier:

> […] not being able to find staff. So then you're, you're working more hours just doing day-to-day things […] like dishwashing, and um working an extra shift doing line cooking […] having to do more day to day things and being kept at work longer or yeah, staffing would be the biggest (chuckles), the biggest issue.

The third barrier, a lack of management support, was suggested by Participant 9:

> It all comes down to the company, how much they want to invest in you, you know, to actually market their property […] If you don't have that support then you would not learn anything as well.

The fourth barrier was the boundaries of the work as identified by Participant 5 who said:

> I guess an inhibitor would be that we do have certain boundaries of the cuisine we do here. I'm not going to put an all Thai menu out, so I'm just probably not going to learn that, or push to learn that because it's not something I will apply here […] we're a bistro, you know Classic French Nova Scotian cuisine, so that's kind of my boundaries to play with.

Three participants indicated that they had no barriers to their learning; Participant 2 stated:

> Nothing. Every day is a learning thing, every single day. I learn from my cooks, they learn from me, I learn from the guests. I learn from you know opportunities that come across whether it is at the competition level or with ah you know challenges […].

Participant 6 said:

> That's a tough one. I don't think that a lot of things prevent me from learning. Um, I, I even learn from negativity. I mean, learning is something that I think we all have to do on a regular basis. Ah, no. I have to say no.

Having insufficient time and having too much work are significant learning barriers identified by chefs as well as by professional accountants (Hicks *et al.*, 2007), managers in small and large firms in knowledge-based industries (Doyle and Young, 2007) and human resource managers (Crouse *et al.*, 2011). A lack of management support for workplace learning has been identified by Ellinger and Cseh (2007) and McCracken (2004).

The fourth barrier, being constrained by the type of food that the restaurant features, is a contextual barrier (Eraut, 2004) and is not a constraint that all other professionals face, but is indicative of the constraints on learning that differ across varying contexts. Further, acknowledging that there are no barriers to their own

learning is not the usual finding from many others, most of whom tend to identify specific barriers to learning.

Learning facilitators

Participants were asked, "What kinds of things help you to learn workplace knowledge and skills?" Seven participants described five learning facilitators, the first of which was learning from others. Participant 10 said, "[…] in terms of drawing from experience and your co-workers", and Participant 7 said, "It's the people helping me learn, ah, and that's throwing around, like bouncing around ideas so if we have something in ah, it's like "oh, we have this, do you guys want to try that? So it's great to have all these different ah, different minds coming together". Participant 11 indicated that working with others who were motivated was important:

> […] I mean, what kind of things help me […] I guess when you're working with other motivated individuals […] I guess surrounding yourself with, with um people who have the same kind of passions and drive that you do.

The second facilitator, doing the work, was described by five participants and Participant 4 said, "Um, interaction, hands on is how I personally learn best" and Participant 6 said:

> So I mean when you're busy, you try to find ways to make things more efficient […] what could I have done in that moment to make my job easier, to make my staff jobs easier and be more productive?

The third set of facilitators was doing research either reading books and magazines or going online. Participant 3 said:

> The books, the magazines that you pick up, the Internet's always there which is fabulous (laughs). And I have a tablet which allows me to, I have cookbooks on my tablet (laughs).

Taking courses was a fourth set of facilitators, Participant 11 said:

> […] um, ah, you know taking just like little courses here and there, like I still attend different workshops and things like that and then bring, you know bring that back when I'm at work right?

A fifth set of facilitators, organizational support, was described by Participant 2 who stated:

> No, I mean ah you know work's, very, very supportive. I mean the support of my work is definitely one of the biggest assets that we have as far as ah, being able to sort of spread our wings on different opportunities.

Clearly, the facilitators described by professional chefs are quite consistent with many of the generic facilitators, for example, learning from others and by doing the work, identified by others (Carroll, 2008, Crouse *et al.*, 2011, Hicks *et al.*, 2007). Contextually, learning from others through various networks is very important for chefs. Indeed, these networks fit well within the notion of communities of practice (Lesser and Storck, 2001), and in such communities "learning, thinking, and knowing are relations among people in activity in, with, and arising from the socially and culturally structured world" (Lave and Wenger, 1991, p. 51). These communities of practice "provide valuable learning opportunities for kitchen employees" (Cormier-MacBurnie, 2010, p. 75).

Conclusions

There are numerous overlaps between the chefs' workplace learning and that of other occupational/professional groups. Professional chefs have a very positive view of their own learning and that of others in their field. Learning in the workplace is important for professional chefs, as it is for other professional groups, and it tends to be largely driven by industry changes and a desire to be professionally skilled, similar to those in other fields. However, chefs play a major leadership role in the context of workplace learning, not only in managing their own learning but also leading the learning of others, a point made by several industry experts (Baskette, 2001; Carroll, 2008; Hayes *et al.*, 2012).

Chefs use various learning strategies, with informal learning strategies tending to predominate over formal ones. The strategy of doing independent research was the predominant learning strategy for this group of chefs. Others such as accountants have identified independent learning through research and reading (Hicks *et al.*, 2007), but those strategies tend to be of lesser importance to them than they were to chefs. Such use of technology-based and existing printed materials might well reflect the pressure of their profession to remain current and keep producing new work. The fast rate of change, its unpredictability and the opportunity to participate in competitions are two contextual factors of chefs that provide opportunities to them that other groups might not have.

Chefs' learning outcomes reflect those of other groups, classed as personal (e.g. intrapersonal, interpersonal) or business oriented. The cascading of learning is quite significant and might well reflect the unique kitchen context and the need to have everyone on the same page quickly and at the same time. The main outcome of the chefs' individual learning is that it assists in the development of cascade training (Jacobs and Russ-Eft, 2001). Such training helps learning flow down to others in the kitchen and the broader business environment and helps to bring about change such as new menu items or new processes. It certainly reflects the chefs' leadership positions in the kitchen/restaurant and their roles as coaches and facilitators of learning wherein others look to them to set the direction and pace for learning.

Chefs do face learning barriers that are generic and that are faced by various professional and industry groups (Crouse *et al.*, 2011), but they also face barriers that are unique to their own contexts. For example, the barrier to learning created by the limited or thematic food offerings of their restaurants, a context factor, is an interesting notion. For example, tax accountants do not consider their specialty or their focus a barrier to their learning because they cannot learn more about auditing or consulting.

Learning facilitators described by chefs are clearly very similar to those identified by other occupational/professional groups. However, the internal and external networks, a contextual factor, appear to be of greatest importance to them in facilitating their learning and that of others.

Limitations

The relatively small and local nature of the sample makes generalizability difficult. However, the in-depth nature of the interviews has allowed chefs to provide broad-range and detailed responses that allow a full picture of their workplace learning to emerge.

Implications for practice and future research

There are practical implications of this research. Given the chefs' positive view of their learning, it is important that they continue to enhance their own learning and that of their colleagues. Chefs can consider such simple steps as providing easy access to IPads and/or other technological devices as well as creating and/or enhancing existing libraries of hard-copy cookbooks to encourage learning. Eating at other establishments is a prime facilitator of chefs' learning, and, as such, they might wish to create and/or lobby for greater opportunities, in terms of time and budget, for themselves and their colleagues to visit other food establishments. Experimenting and testing are also prime learning vehicles for chefs and their colleagues and chefs again must think about working to establish means to improve opportunities for experimenting, perhaps through in-house competitions focused on various menu options. One of the most important findings of this study has been the notion of the "learning cascade" frequently mentioned and used by many chefs. Chefs must be aware of the impact of their own learning on the learning of others, the outcomes of such learning and their overall leadership role in workplace learning. For example, through cascade learning chefs transmit professional knowledge and skill to others, as well as helping others develop a positive attitude about learning.

Chefs should become aware of the barriers to workplace learning and try to remove those barriers where possible. Tactics could include showing to those in charge of resource distribution the benefits of improving workplace learning outweigh their costs. Such tactics would require chefs to become proficient at assessing the outcomes and impacts of workplace learning. To facilitate their learning, as well as that of others, chefs can develop their own internal and external networks and create communities of practice internally by having formal (e.g. demonstrations of cutting skills) and informal (e.g. coffee and chats about what works, what doesn't, and what the solutions are) meetings. External communities of practice can be enhanced by joining professional networks, participating in various competitions, and keeping in touch with other chefs formally and informally.

Further, senior managers and human resource managers must become more fully aware of the importance of workplace learning and its various key elements such as learning strategies, outcomes, barriers, facilitators and relevant contextual factors, for example, understanding the roles and techniques of cascade training and learning and their impact on developing people. In more fully understanding workplace learning, they can provide support to their chefs through providing time, opportunities and resources for learning. Specifically, given the importance of chefs' leadership in learning, managers can provide leadership development opportunities to chefs as well as supporting their participation in chef competitions. Managers can also lead by example in facilitating workplace learning throughout their organizations.

Future research should more fully explore the strategies, outcomes, barriers and facilitators discussed in this paper. A national survey of professional chefs in Canada could provide more information about the extent to which various factors affect chefs' learning. Indeed, future research should also begin to more fully examine the links between workplace learning and individual, group and firm performance.

References

Abraham, L. (2014). "Contestants on 'Top Chef Canada' in pressure cooker, says head judge Mark McEwan", *The Canadian Press [Toronto]*, March 9, available at: www.news1130.com/2014/03/09/contestants-on-top-chef-canada-in-pressure-cooker-says-head-judge-mark-mcewan/

Baskette, M. (2001), *The Chef Manager*, Prentice-Hall Inc, Upper Saddle River, NJ.

"Canada's restaurant industry adds more than 33,000 jobs" (2012), *Canada Newswire [Ottawa]*, October 25, available at: www.newswire.ca/en/story/1059153/canada-s-restaurant-industry-adds-more-than-33-000-jobs

Carroll, C. (2008), *Leadership Lessons from a Chef: Finding Time to be Great*, John Wiley & Sons, Hoboken, NJ.

Chefs – Service Canada (2013), available at: www.servicecanada.gc.ca/eng/qc/job_futures/statistics/6241.shtml

Colley, H., Hodkinson, P. and Malcolm, J. (2003), "Understanding informality and formality in Learning", *Adults Learning*, Vol. 15 No. 3, pp. 7-9.

Cormier-MacBurnie, P. (2010), "Informal learning in restaurant kitchens", *Proceedings of the Canadian Association for the Study of Adult Education Conference*, available at: http://casae-aceea.ca/~casae/sites/casae/archives/cnf2010/OnlineProceedings-2010/Individual-Papers/Cormier-MacBurnie.pdf

Cornford, I. and Gunn, D. (2006), "Work-based learning of commercial cookery apprentices in the New South Wales hospitalities industry", *Journal of Vocational Education & Training*, Vol. 50 No. 5, pp. 549-567.

Crouse, P., Doyle, W., Farmer, R. and Young, J.D. (2015), "Information technology professionals and workplace learning", paper accepted for presentation at and for the Proceedings of the South West Decision Sciences Institute Conference, Houston, TX, March.

Crouse, P., Doyle, W. and Young, J.D. (2011), "Workplace learning strategies, barriers, facilitators and outcomes: a qualitative study among human resource management practitioners", *Human Resource Development International*, Vol. 14 No. 1, pp. 39-55.

Cunningham, J. and Hillier, E. (2013), "Informal leaning in the workplace: key activities and processes", *Education + Training*, Vol. 55 No. 1, pp. 37-51.

Day, N. (1998), "Informal learning", *Workforce*, Vol. 77 No. 6, pp. 30-36.

Decker, F. (n.d.). "Male vs female chefs", *The Nest*, available at: http://woman.thenest.com/male-vs-female-chefs-13189.html

Doyle, W., Findlay, S. and Young, J.D. (2012), "Workplace learning issues of hotel employees: examining differences across management status and gender", *Journal of Human Resources in Hospitality & Tourism*, Vol. 11 No. 4, pp. 259-279.

Doyle, W. and Young, J. (2005a), "Workplace learning strategies of small business owners/managers: further evidence", *Proceedings of the Thirty-Fourth Annual Meeting of the Western Decision Sciences Institute, Vancouver, BC.*

Doyle, W. and Young, J. (2005b), "Small business owners/managers: exploring workplace learning and its outcomes", *Proceedings of the Midwest Business Administration Association Conference, Chicago, IL.*

Doyle, W. and Young, J.D. (2007), "Workplace learning strategies of managers in small and large firms in knowledge-based industries", *Proceedings of the University Forum on Human Resource Development, Oxford, 27-29 June.*

Ellinger, A. and Cseh, M. (2007), "Contextual factors influencing the facilitation of others' learning through everyday work experiences", *Journal of Workplace Learning*, Vol. 19 No. 7, pp. 435-452.

Eraut, M. (2004), "Informal learning in the workplace", *Studies in Continuing Education*, Vol. 26 No. 7, pp. 247-273.

Fine, G.A. (1996), *Kitchens: The Culture of Restaurant Work*, University of California Press, Los Angeles, CA.

Fuller, A. and Unwin, L. (2005), "Older and wiser? Workplace learning from the perspective of older employees", *International Journal of Lifelong Learning*, Vol. 24 No. 1, pp. 21-39.

Goldenberg, M. (2006), "Employer investment in workplace learning in Canada", available at: www.ccl-cca.ca/NR/rdonlyres/4F86830F-D201-4CAF-BA12-333B51CEB988/0/EmployerInvestmentWorkplaceLearningCCLCPRN.pdf (accessed 1 June 2012).

Hara, N. (2001), "Formal and informal learning: incorporating communities of practice into professional development", paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA, 10-14 April.

Hayes, D.K., Miller, A.A. and Ninemeier, J.D. (2012), *The Professional Kitchen Manager*, Pearson Education Inc., Upper Saddle River, NJ.

Hicks, E., Bagg, R., Doyle, W. and Young, J.D. (2007), "Canadian accountants: examining workplace learning", *Journal of Workplace Learning*, Vol. 19 No. 2, pp. 61-77.

Highlights – Human Resource Module of the Tourism Satellite Account (2009), available at: www.statcan.gc.ca/pub/13-604-m/2010066/sm-sm-eng.htm

Jacobs, R. and Russ-Eft, D. (2001), "Cascade training and institutionalizing organizational change", *Advances in Developing Human Resources*, Vol. 3 No. 4, pp. 496-503.

James, S. (2006), "Learning to cook: production learning environment in kitchens", *Learning Environments Research*, Vol. 9 No. 1, pp. 1-22.

Kock, H. (2007), "The team as a learning strategy: three cases of team-based production in the Swedish manufacturing industry", *Journal of Workplace Learning*, Vol. 19 No. 8, pp. 480-496.

Lave, J. and Wenger, E. (1991), in Brown, J., Pea, R., Heath, C. and Suchman, L. (Eds), *Situated Learning, Legitimate Peripheral Participation*, Cambridge University Press, Cambridge, NY.

Lesser, E.L. and Storck, J. (2001), "Communities of practice and organizational performance", *IBM System's Journal*, Vol. 40 No. 4, pp. 831-841.

Lin, M. and Bound, H. (2011), "Workplace learning experiences of trainees engaged in Singapore's workforce skills (WSQ) training", available at: http://avetra.org.au/wp-content/uploads/2011/05/98.00.pdf (accessed 1 June 2012).

Livingstone, D. (2010), "Job requirements and workers' learning: formal gaps, informal closure, systemic limits", *Journal of Education and Work*, Vol. 23 No. 3, pp. 207-231.

Lloyd, B., Pfeiffer, D., Dominish, J., Heading, G., Schmidt, D. and McCluskey, A. (2014), "The New South Wales allied health workplace learning study: barriers and enablers to learning in the workplace", *BMC Health Services Research*, Vol. 14 No. 134, pp. 1-17.

Lohman, M. (2000), "Environmental inhibitors to informal learning in the workplace: a case study of public school teachers", *Adult Education Quarterly*, Vol. 50 No. 2, pp. 83-101.

McCracken, M. (2004), "Towards a typology of managerial barriers to learning", *Journal of Management Development*, Vol. 24 No. 6, pp. 559-575.

McDermott, R. and Carter, R. (2010), "A recipe for change: managing the learning of trainee/apprentice chefs at work", available at: http://avetra.org.au/wp-content/uploads/2010/04/28.00-Richard-McDermott.pdf (accessed 1 June 2012).

Margaryan, A., Milligan, C. and Littlejohn, A. (2013), *A Typology of What Professionals Learn Through Everyday Work*, Green paper Caledonian Academy, Glasgow Caledonian University, available at: https://dl.dropboxusercontent.com/u/6206056/TypologyOfWhatIsLearnedThroughWork.pdf

Marsick, V.J. and Watkins, K.E. (2001), "Informal and incidental learning", *New Directions for Adult and Continuing Education*, Vol. 2001 No. 89, pp. 25-34.

Slade, B. (2013), "Professional learning in rural practice: a sociometric analysis", *Journal of Workplace Learning*, Vol. 25 No. 2, pp. 114-124.

"Sobeys and Jamie Oliver launch delicious new line of products in time for the holiday season." (2013), *Canada News Wire [Ottawa]*, November 7, available at: www.newswire.ca/en/story/1256657/sobeys-and-jamie-oliver-launch-delicious-new-line-of-products-in-time-for-the-holiday-season

Van der Heijden, B., Boon, J., van der Klink, M. and Meijs, E. (2009), "Employability enhancement through formal an informal learning: an empirical study among Dutch non-academic university staff members", *International Journal of Training and Development*, Vol. 13 No. 1, pp. 19-37.

van Rijn, M.B., Yang, H. and Sanders, K. (2013), "Understanding employees' informal workplace learning: the joint influence of career motivation and self-construal", *Career Development International*, Vol. 18 No. 6, pp. 610-628.

Weyant, L.E. (2011), "The role of workplace learning within the full-service casual restaurant industry", *Journal of Business, Society and Government*, Vol. 3 No. 1, pp. 31-47.

Wofford, M.G., Ellinger, A.D. and Watkins, K.E. (2013), "Learning on the fly: exploring the informal learning process of aviation instructors", *Journal of Workplace Learning*, Vol. 25 No. 2, pp. 79-97.

Corresponding author
Paulette Cormier-MacBurnie can be contacted at: paulette.cormier@msvu.ca