The transition from face-to-face to online CME facilitation

JOCELYN LOCKYER¹, JOAN SARGEANT², VERNON CURRAN³ & LISA FLEET³
¹University of Calgary, Alberta, Canada; ²Dalhousie University, Halifax, Nova Scotia, Canada; ³Memorial University of Newfoundland, St John’s, Newfoundland, Canada

ABSTRACT This study examines the experiences of nine medical teachers who transitioned from face-to-face teaching to facilitating a course in an online environment. The authors examined the reasons why the teachers agreed to facilitate an online course, the challenges they encountered and their practical solutions, and the advantages and disadvantages they perceived to this teaching environment. Thirty-minute phone interviews were conducted. An iterative process was used to develop the themes and sub-themes for coding. Teachers reported being attracted to the novelty of the new instructional format and saw online learning as an opportunity to reach different learners. They described two facets to the transition associated with the technical and facilitation aspects of online facilitation. They had to adapt their usual teaching materials and determine how they could make the ‘classroom’ user friendly. They had to determine ways to encourage interaction and facilitate learning. Lack of participation was frustrating for most. This study has implications for those intending to develop online courses. Teacher selection is important as teachers must invest time in course development and teaching and encourage participation. Teacher support is critical for course design, site navigation and mentoring to ensure teachers facilitate online discussion.

Introduction

Interest in the potential benefits of online learning in medical education is evident from systematic reviews of the literature (Chumley-Jones et al., 2002; Wutoh et al., 2004; Curran & Fleet, 2005). These reviews tell us that learners are satisfied with online learning and there is evidence for knowledge gain and practice change. Adding to these reviews, a recent randomized control trial showed that online programs could produce objectively measured changes in behavior as well as sustained gains in knowledge comparable or superior to those realized from effective face-to-face activities (Fords et al., 2005).

Outcome studies are helpful, albeit ‘blunt’ attempts that help us understand the role that online courses can play in physician learning. As was noted by Chumley-Jones et al. (2002), definitive results are hampered by the variability in instructional design and research methodology. It becomes important then to take a step back and try to identify and examine those factors that might contribute to more successful online outcomes. The contribution of the teacher or facilitator appears to be one of those factors. For example, in interactive online courses that include a discussion component, Curran et al. (2005) found that while facilitator postings could be quite variable, there was a positive association between facilitator postings and the amount of interaction in the course. Sargeant et al. (2004) showed that participant perception of online courses was influenced not only by program design and quality but also by the quality and quantity of interpersonal interaction, the latter shaped by perceptions of social comfort, the educational value of interactions and the role of the facilitator. In another analysis, Sargeant et al. (2006) reported that skilled facilitators used techniques to enhance interaction and that they were critical forces in creating a comfortable learning environment and enhancing the educational value of electronic discussions.

While online courses have been used more extensively in other disciplines (Berge & Mrozowski, 1999), their use in continuing medical education (CME) is more recent. It is likely that online CME teachers have little experience as online learners, few role models and little opportunity for training in online facilitation. The in-depth examination...
by Baynton et al. (2003) of the experiences of ‘novice’ online teachers showed teachers were more successful if they were oriented towards change, supported by an instructional designer and had a learner-centered philosophy. They noted that online facilitation was more challenging than face-to-face teaching and successful instructors reported the need for more time for design, organization and delivery than in regular classroom teaching. Lee & Dziuban (2002) support these findings, suggesting that instructors often find themselves cast into an altered teaching environment that requires them to be facilitators who individually support their students. In many ways, this is similar to instructors’ first experiences using learner-centered approaches, such as small-group teaching or problem-based learning (Jacques, 2000; Shannon, 2004).

The purpose of our study was to explore the nature and dimensions of the transitions that take place when CME teachers move from traditional face-to-face to online facilitation. Our exploratory study addressed: (1) the reasons CME instructors agreed to facilitate an online course; (2) the challenges they encountered and their practical solutions; and (3) their perceptions of the advantages and disadvantages of online teaching. The findings from this study will be useful to CME planners and facilitators involved in delivering courses online.

Methods

Background and educational interventions

MDcme.ca is a Web portal that serves as the home of a number of online CME courses accredited by the College of Family Physicians of Canada. It began in 2001 with four courses and has expanded to 28 courses with courses in both English and French. Over 1400 registrants have participated in the courses developed by 13 of the 17 Canadian medical schools. The courses address a range of topics identified through needs assessments in our academic CME offices (e.g. breast screening, emergency medicine, generalized anxiety disorders, lifestyle counseling). Each course was offered over a defined period, three or four weeks, with the course content unfolding through cases and an asynchronous facilitated discussion board that presents different questions each week. Courses were accredited by the College of Family Physicians of Canada, the opportunity for interaction with peers via electronic discussion being one criterion for accreditation.

Recruitment and data collection

This was a qualitative study using semi-structured telephone interviews for data collection. We used interviews as they enable exploration of concepts and perceptions and lead to increased understanding. We sent invitations, via email or fax, to all facilitators (n = 18) of the MDcme.ca courses offered between September 2003 and June 2005.

The following interview questions were provided to respondents prior to the 30 minute interview:

1. Had you taught an online course prior to this one?
2. What attracted you to teach a Web-based CME course?
3. What were your biggest challenges in adapting to online education?
4. How did you adjust your teaching style to online teaching?
5. What did you like and/or dislike about teaching in the Web-based CME course which you participated in?
6. Compared with face-to-face teaching, how was online similar and dissimilar?
7. What would you have liked to have known before you began teaching online?
8. Is there anything else you would like to tell us about your experiences as a Web-based teacher?

Interviews were tape-recorded with the permission of the respondent, transcribed verbatim and entered into Ethnograph for data handling. To begin to understand the data, two groups of two researchers (VC, LF; JS, JL) each individually reviewed two different transcripts and then discussed preliminary findings and the emerging coding framework by teleconference. Each researcher then applied the preliminary coding to the same two transcripts and participated in another conference call to refine the coding, followed by analysing another two transcripts and a third conference call to finalize the coding. Finally, two researchers (LF, VC) applied the coding to the remaining transcripts. The team then reviewed the themes by codes and resolved differences and linked similar themes through discussion.

Results

We interviewed nine facilitators. Eight were physicians. They had been in practice between 10 and 24 years and seven of them held academic appointments. The roles played by the nine facilitators were diverse. In some cases they were involved from the beginning with determining course content, working with the instructional designer to put the course into an online format and then facilitating the course. In other instances, the facilitator’s involvement began at the point of facilitating an already developed course that was online. Similarly, the support accessed by the facilitator varied with some accessing face-to-face instruction and guidance. Others were guided by a printed manual. Four had previous online teaching experience.

The following presents key findings related to their reasons for participating in online CME and their perceptions of challenges, advantages and disadvantages of teaching in an online setting.

Determinants of participation

All but two reported that they became involved when approached by the CME Office for help. They were drawn by the novelty of a new instructional modality and the challenge of teaching a topic of interest in a new medium.

Well, it was certainly a challenge. I’d never done it before and I think for me, trying out different things was great. (#4)

I was asked to do a subject which I’m very interested in. I mean if I had been asked to do it on a subject
that I couldn’t care less about, then—so it was a fact that it was something I was interested in. (#8)

Respondents were also interested in exploring the medium in terms of how it influenced content development and how teaching was conducted. As one facilitator noted:

It just sounded like an interesting way to present some material that I’d already done and in a different format. (#2)

They also cited the potential of online CME and its influence on CME in the future as a driving force behind their attraction. They felt it was important to obtain some experience in this area:

I think there’s tremendous potential there. I think we’re just in the infancy. (#7)

Facilitators responded altruistically, commenting that online education provided physicians with increased access to CME, noting that many physicians, especially those who work in rural and remote communities, face tremendous barriers in accessing timely CME that meets their professional needs. They saw online CME as one way of reaching people that they would otherwise not reach.

Challenges, solutions, advantages and disadvantages

Facilitators described their challenges, adjustments, the advantages and disadvantages of online facilitation as well as the similarities to and differences from online facilitation. Through this, two themes emerged: (1) the technical aspects of developing and providing the content and (2) the skills of facilitating and interacting in an online course.

Technical aspects

Developing materials presented a number of technical challenges. They had to develop materials to suit this new medium, collaborate with an instructional design team, figure out ways to make their course user friendly and find time to develop their course:

The first step for me was to get comfortable with the format, and understand how my information which I was used to delivering face to face was going to be put into an online format. (#3)

While some facilitators were new to this and had not worked with an instructional design person, they relied on that expertise to design the course and help with technical aspects and course navigation after it went live:

I think it was very good that [the IT consultant] and I went through the program together because a lot of stuff was missing, and not working, like the audio wasn’t working, and we had to sort all of that out first or I would have been in the midst of the course and had all kinds of concerns and complaints about this isn’t working, and you know the facilitator doesn’t want to deal with technical stuff. (#3)

One physician reported few problems with the technical aspects:

I knew the course material. Once I understood how the software program worked it was relatively straightforward for me. (#7)

When they began to facilitate the course, there were other challenges that included navigation on the site, the time required to navigate and, for some, typing.

Every time I read a response I would have to minimize or close it, go back and re-read the question and sometimes go back and refer to the case as well. This was time-consuming. (#6)

One of the downfalls, I think, that I blame myself on is that I didn’t practice… I wish I would have had a mock week… first to practice, which I really didn’t have. I was given all the stuff to practice to do this, to do this, to do this, but until you get out onto stage, you can’t do it, so it was the logistics of the computer itself that I found most difficult. (#8)

I found the chat line to be difficult to navigate through. I found that the continuity of the program was interrupted so you didn’t know if everybody was on the same page that I was, sometimes people would be on part one and other people would be on part three so I was jumping back and forth and trying to remember what cases and what learning points came up when. (#9)

Another physician was conscious of the end-users in designing the course:

Things should be one click away instead of three clicks away and I found with this one there were, just to get into the module I think you had to do three clicks… It seemed to me if you could get that down to one less click, I think it makes a big difference from the end users’ point of view. (#5)

When asked about the disadvantages, they noted typing and copyright issues:

So I think it took finding ways to deliver it so that there was less typing involved and to make it more simple. (#1)

We ran into problems with copyright of image banks… it was going to be expensive or difficult or impossible to actually use images from image banks. And obviously using images of real patients involves consent and copyright and things like that. So that was an obstacle that we actually didn’t overcome, we had to scrap the images. (#5)

Trouble coordinating getting material together. Problems gathering video resources due to copyright issues so we had to do our own videos and was not able to get all the ones I wanted. (#6)

When asked about the advantages related to the technology, they commented on the flexibility of the medium and the ability to link content. They could use different teaching strategies and found technical ways they could provide...
Learning how to facilitate in an online environment required learning new skills. Some facilitators, especially ones used to teaching strategies and time needed.

In summary, while the use of the technology created challenges for course development, instructional design and course navigation, participants believed it offered educational advantages such as flexibility, the ability to use other media and links to related content.

Facilitating and interacting in an online environment

Discussions took place in an asynchronous forum, which made the medium different for facilitators. They particularly commented on the challenges presented by this and the new teaching strategies and time needed.

It’s easier to explain something if you’re face to face with someone. So I didn’t like ... the fact that I maybe couldn’t get my message across as well as I could have if I was face to face with that individual. (#1)

It’s not real time and you’re not getting the interaction of the group as well. (#7)

There was a greater challenge to engaging participants in the discussion. All but one physician commented on the lack of participation. They noted how few physicians actually participated in the discussion as well as the fact that they did not interact among themselves:

I would say that participation was only 10%. (#9)

A lot of them didn’t really participate ... I’m sure most of them were busy, just read the whole thing, answered the questions, and did it all in one session and were gone. (#2)

I thought that it missed some spontaneity. (#8)

No dialogue among participants. There was usually no further feedback beyond answering a question. Repetitious when people joined late. All registrants did not participate and the discussions seemed to be driven by those most actively involved. There was no sense of building on thoughts of others. (#6)

Learning how to facilitate in an online environment required learning new skills. Some facilitators, especially ones used to facilitating small-group teaching, adapted quite easily to the facilitation and interaction offered online:

And in some sense rightly or wrongly, I’ve taken the approach ... similar to having a case-based discussion in the room ... I always try and acknowledge people’s participation by naming their names and saying things like, ‘that was an interesting point that Joe Blow raised ... I try and validate when people make contributions and make sure they have been heard ... and rather than just replying to the content ... I might throw it out to the group and say ‘does anyone else have any ideas about this?’ (#5)

I tried to direct open-ended questions to the group, tried to direct more questions to specific people who were asking them. (#9)

Others relied on a resource person or instructional designer to coach them:

It’s very important to have a person who can train us how to be a facilitator. (#3)

Alternatively, a number described advantages offered by the asynchronous interaction. For some, perhaps those more skilled in facilitation, it enabled broad and rich interaction and they described being able to create a community of learners:

The people were excellent. The advantage I think over a four-week period, especially with a group that doesn’t know each other and people from all across Canada and some from the US in our group, was that you got to feel that you knew the people ... so by the time we finished, I think we had a good feel for where we were coming from ... So there was a feeling of collegiality and closeness that developed over the four weeks that I think wouldn’t develop in the group over four hours with the same material. (#4)

What I did like about it was that just the range of people you’re reaching, I mean there were people from virtually all over the country. (#2)

Time for some was helpful but not for others:

I had control over the time I could respond, so if my day was really busy, I could find the time that was best for me, or even do it the following day. (#1)

You also have more time to think, as an educator. So if they challenge you with a question you’re not sure about, you can actually go back to your material, go back to the resources, say ‘well you know, it’s here’, so in that way it’s good. (#7)

It was way more time consuming, because I’d spend a certain number of hours every night, and it was four weeks as opposed to the same program face to face was half a day, four hours, in one half day, so that’s a challenge. (#4)

If I had known it would have been as time consuming and as poorly rewarding as a teacher, I would never have done it. (#9)
In summary, the asynchronous medium presented challenges and the need to learn or refine facilitation skills. While some believed it diminished the value of discussions, others, perhaps the more skilled, did not and believed it actually enabled rich discussions that were otherwise not available. Respondents also viewed the use of time as both an advantage (i.e. it offered flexibility and ‘thinking time’), and a disadvantage (i.e. it required more time than face-to-face programs).

Discussion

The nine facilitators we interviewed were generally drawn to online learning by the novelty of the approach and the challenge it provided to teach in a different way from physicians whom they otherwise might not have ‘met’. As researchers, we were in a unique position to examine teacher transition to online teaching. Few providers have offered the variety and number of courses offered by MDcme.ca.

Two major aspects of transitioning to online learning appeared to be influential: the technical aspects of online course development and navigation, and facilitating and interacting in an online environment. The technical aspects were challenging as teachers needed to adapt material used in face-to-face instruction to the online medium, identify ways to make their course user friendly, and learn how to navigate this new medium and use the discussion software. Through this, the services of an instructional designer were critical to most.

Facilitation and interaction with participants were also challenging as teachers learned how to facilitate in an asynchronous learning environment and adapt their face-to-face teaching strategies. While some benefited from coaching in this area, facilitators who had more small-group facilitation experience appeared better able to adapt their approaches to online teaching, perhaps because of the learner-centered approach (Baynton et al., 2003). Lack of participation in course discussions was identified most consistently as the most problematic feature of their online experience, diminishing the quality of learning and the educational intervention. This supports findings of an earlier study of participants’ perceptions of online learning (Sargeant et al., 2004).

Overall, some facilitators were more satisfied with the experience than others. Both the additional time and the typing skills required influenced the degree of discomfort with the medium. Those who liked the experience commented on the control they had over the teaching. They liked being able to provide links for questions, deliberate over answers and participate in their own time. They liked working with new people from across the country on a topic of interest to them and they spoke of its fit with their teaching style:

I think a lot of my normal teaching style in face to face sort of came across. I would very much enjoy answering the individual questions and trying to pull the information together from different people. So I think that’s something that I do in a face-to-face situation. So I didn’t see it as a dramatic difference. I know there’s two schools of thought, one is that it’s very different, one is that it’s very similar to face-to-face, small-group teaching. (#4)

Earlier studies of both learners and teachers in online education have identified that fluency and skill in both technology and facilitating interaction influence satisfaction (Cravener, 1999; Eva et al., 2000; Muilenberg & Berge 2001; Sargeant et al., 2000; Curran et al., 2004). As others have noted (Lee & Dziuban, 2002; Baynton et al., 2003), for novice online teachers the move to online teaching can involve a drastic change and the primary role of teacher shifts from dispensing information to facilitating it. In this study, about half of the nine facilitators had no prior online teaching experience and while several described it as being a difficult adjustment, most did not describe it this way. They attributed their adaptation to their teaching style and/or to assistance with instructional design and facilitation.

Our study has a number of implications for developing online courses and facilitators of those courses. It is helpful to recruit teachers who are flexible, curious and persistent, and to inform them about the increased time obligations. As Lee & Dziuban (2002) found, interested and enthused faculty remain committed to online teaching if their personal satisfaction outweighs the considerable time management and technological demands. Instructional design support is important to aid content development and presentation and efficient site navigation. Equally important are the coaching, mentoring, normalizing of the experience and reinforcing of effective teaching strategies, which are key to instructor development in any new environment (Cravener, 1999; Eva et al., 2000; Shannon, 2004). As Sargeant et al. (2006) observed, the facilitator’s ability to enhance interaction was critical to learner perception of a good educational experience. In this type of forum, facilitators need to be reminded to draw out participants, monitor progress, provide pertinent information (usually with links) and summarize key learning.

As systematic literature reviews (Chumley-Jones et al. 2002; Wutoh et al., 2004; Curran & Fleet, 2005) and a recent randomized control trial (Fordis et al., 2005) show, online education can be a useful medium for fostering learning and change. However, as in other aspects of teaching, the potential for online courses to influence practice may be enhanced by careful recruitment, paying attention to instructional preparation that promotes facilitator–learner interaction, includes coaching in the skills to do this, and recruits facilitators skilled in facilitating small groups.

There are limitations to our study. We interviewed nine facilitators from across Canada who taught a course that required interaction over a defined period of time. The courses were all designed for family physicians within the Canadian CME accreditation context. Additionally, participants were volunteers, which may have influenced our findings. We examined our data using teacher characteristics but could not identify patterns based on experience, facilitator role in course development or the type of instructional design support received. The influence of these characteristics requires further exploration. However,
our findings confirm those of earlier studies examining teacher experiences in other contexts (Lee & Dzuiben, 2002; Baynton et al., 2003) and in medical education (Eva et al., 2000; Sargeant et al., 2004, 2006; Curran & Fleet, 2005), which showed the importance of facilitator–participant interaction and instructor preparation for online environments.

Notes on contributors
JOCelyn LOCKyer, PhD, is Associate Dean for Continuing Medical Education and Associate Professor, Department of Community Health Sciences, Faculty of Medicine, University of Calgary.
JOAN SARGEANT, MEd, is Assistant Professor, Division of Medical Education, Faculty of Medicine, Dalhousie University.
VERNON R. CURRAN, PhD, is Director, Academic Research and Development and Associate Professor (Medical Education), Faculty of Medicine, Memorial University of Newfoundland.
LISA J. FLEET, BEd MA, is Research Coordinator, Office of Professional Development, Faculty of Medicine, Memorial University of Newfoundland.

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