

Ergonomics and Change

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Ergonomics is all about change. It's about adapting and making our environment more suitable, more comfortable, more efficient and more productive. And, when factors in the environment change, we rely on the ergonomist to help us adapt. Some time ago, in one of my previous columns on occupational consulting [www.chiroweb.com/archives/19/06/05.html], I wrote about a book titled, *Who Moved My Cheese?* Great book! The book states that when things change, you can change with them. In other words, adapt or get left behind.

Which brings me to the issue at hand. The topic of this particular column is actually stimulated by a postgraduate seminar that I am preparing on ergonomics. I'm really looking forward to teaching the course, but at the same time, I'm looking at the changing environment in postgraduate and/or continuing education. Over the years, I have spent a considerable amount of time teaching both postgraduate and continuing education courses. I've presented at conferences all over the world. At one point, I lectured consistently for two weeks each month for nearly five years. Each time, the scenario was the same. I left town on a Friday evening, checked into a hotel in a distant city (hopefully before midnight), and woke up Saturday ready to lecture for six hours. After lecturing for six more hours on Sunday, I headed back to the airport and arrived home just in time for a late supper. Monday, it was back to work. Many who attended the classes also had traveled to get to the program. They gave up time in their practices, traveled to the seminar, spent a night or two in a hotel, and paid for hotel food that was typically too expensive. Not to mention missing a weekend with their family.

Now, I'm not complaining. I did this voluntarily (still do) and enjoyed the process, the people and the travel. And, unlike the folks in the audience, I get paid for my time. But I'm now wondering if this is the ideal way to achieve continuing education credits. Let's see if we can make this an ergonomic issue. After all, while we usually think about ergonomics making things more comfortable, it's also about making us more productive and efficient.

In California, as is many states, doctors of chiropractic are required to take a minimum of 12 hours of continuing education each year. We are also required to attend five hours of X-ray classes in order to maintain a license to take X-rays, and recently, DCs have been required to take CPR certification classes. The typical format for the 12 hours of continuing education has always been six hours on Saturday and six hours on Sunday, just as I have done for so many years. A few years ago, in an attempt to capture a larger share of the continuing education market, a creative individual put all 12 hours on Saturday. He marketed his seminar as a "one-day program," saving participants both time and money. The fact that others, including many chiropractic colleges, have adopted this format is testimony to its popularity from a user's perspective. Giving up one day seems much more acceptable to many folks than taking an entire weekend to achieve the same goal - the required 12 hours of continuing education credits.

What ergonomic factors are involved in this 12-hour, one-day approach to continued learning? First, sitting for any extended period of time is tiring. And the chairs in the facilities where these courses are offered aren't always the best, from an ergonomic perspective. Then there's the attention span thing. Regardless of how entertaining the speaker is, it's pretty difficult to maintain

the attention of any group of individuals for such a long period of time. There's also some very interesting work that focuses on the diurnal variations in attention, motivation, and concentration. Plus, there's quite a change in blood sugar over the course of the 12 hours. Typically, the lecture room houses a large pot of coffee and a plate of sweets, which doesn't help the attention span. And usually the room is too hot for some and too cold for others, also adding to the discomfort level.

So, what's the alternative? If we keep to offering continuing education programs in the two-day, six-hours-per-day format, class size will undoubtedly continue to decline. On the other hand, the one-day, 12-hour marathon format isn't the best learning environment. Perhaps we could look at other methods. For example, we have recently seen a rapid increase in the number of continuing education courses offered online, especially in other disciplines, such as medicine. According to a recent report on www.amednews.com, of the total annual physician involvement in continuing medical education (CME), online participation jumped from 1.03 percent (1998) to 9.57 percent (2003). The number of physicians completing CME online for credit went from 37,879 in 1998 to 577,903 in 2003, with some 73 percent of physicians taking some level of CME online in 2003. I'm not sure what the percentage is for DCs yet, but I'm sure it will grow in the next few years.

Obviously, not all continuing education programs lend themselves to an online format. As an example, California requires four of the 12 hours of continuing education to be technique oriented, which might be difficult to deliver in a distance format. Therefore, some programs will continue to require attendance and hands-on demonstrations and practice. That's good for folks like me. I still enjoy showing up at a hotel and working directly with people.

However, I'm OK with responding and adapting as the environment changes. In addition to preparing a typical 12-hour continuing education course on ergonomics, I'm also investing time in preparing a distance-learning format for the same material. Not as much human interaction that way, but certainly more cost-effective. From an ergonomic point of view, it is more user friendly.

By the way, if you're interested in online learning, check out the Stroke and Cervical Manipulation program at www.cevaptive.com. It's free! (And, just so you know, I have no investment in the Web site.)

OCTOBER 2004