Editorial

Change, the Constant

One phenomenon that appears to be constant is that of change, or at least the perception of change. As educators, one of the ways we may experience this phenomenon is when after several years we encounter a former student. In most instances we recognize the student, and we may even recall her or his name as well. Nevertheless, we also recognize that there has been change between the time we taught the student and the present. Sometimes the change can be so pronounced that it is shocking, when what we perceive is so markedly different from our memory and expectation.

For example, I often encounter former students from my days as a classroom teacher. Usually I meet them at the university, although sometimes in unexpected locations. More often than not I recall their names, although it may take a few seconds for my mind to retrieve them. On one occasion, however, as I was walking briskly between buildings to avoid prolonged exposure to the cold, a voice called my name. Stopping and turning, I saw that the person calling was an extremely tall and substantial man who was smiling. I did not recognize him as a student in my current classes, a graduate student, or a former student. Adopting an approachable, but somewhat guarded demeanor, I responded, "Yes, how can I help you?" The look on the person's face changed from a smile to one of extreme disappointment. He then told me his name, reminded me how he had been considerably smaller than his classmates in senior high school, and said that he had often been called disparaging nicknames such as "pipsqueak" by his peers. He added that he often worked with me during noon hours on the school yearbook as I did not care about his lack of stature and because I forbade others present from commenting on anything besides matters related to the yearbook.

My former student had changed considerably, so much so that it took the recounting of this information for me to recall his name. Besides having grown, he appeared confident and outgoing: almost a complete transformation from what he had been. Although I was delighted to meet him again, inwardly I was shaken that someone could change so much in what I thought to be such a short span of time. On reflection I realized that it had been over 10 years since I had taught the student. I was struck with the thought that although I believed that I understood change and did not fear it, I was becoming like the caricature of the old teacher who thought that society was in an irreversible decline ever since the death of the Old Queen (Victoria). The episode with my former student made me question my own views and fueled an interest in change and how it is perceived.

To be sure, the topic of educational change has been investigated by several educational researchers. One Canadian in particular, Fullan (Fullan & Stiegelbauer, 1991), is closely associated with the study of educational change. Nevertheless, my interest in educational change is not so much systemic change, but the phenomenon of change, especially as it occurs to individuals. A subject area

with which I have major involvement is what is termed technology education. In many places it continues to be referred to variously as industrial arts, industrial education, shop, technical education, prevocational, and even vocational education. Indeed the student I mentioned had taken photography classes with me. Although the student had changed, so too had the curriculum and technology related to the teaching of photography. When he had been my student, photography was entirely film- and darkroom-based. At the time of our reunion, however, digital cameras and Photoshop were making strong inroads into the realm of traditional photography. Indeed I received calls from several teachers who were disturbed by these changes. "What will happen to our darkrooms?" "The only way to learn photography is by working with film and learning darkroom techniques," and "I will not change" were some of the comments I recall. Although knowing how to process and print film in the darkroom is empowering and can provide a sense of accomplishment if the results are as anticipated, the demonstrable decline of film-based photography and the increasing concern about exposing students to toxic materials leads to questions about whether resisting the change to digital photography is really in the best interest of students. Can a student who wishes to become a commercial photographer establish a long and profitable career by using traditional photography? It is doubtful, especially now that recently several manufacturers have announced that they are discontinuing the production of particular film lines. In fact many technologies, either taught directly in schools or used by schools, have changed considerably, and the change occurred primarily because the new technology was demonstrably superior; the advantages outweighed the disadvantages.

Consider how many teachers continue to use Hectograph, Mimeograph, or Gestetner machines. If you do not know what I am referring to, then you have avoided technology that was beguiling in its simplicity, but diabolical in its ability to fail or to create a mess on the order of an oil tanker spill, especially when it was needed in a hurry or for something important. Perhaps if I note that the dry copier, usually referred to as a Xerox machine, replaced these devices, their intended purpose will become apparent.

Although tradition and the desire to preserve knowledge of older technologies are arguments against change, it is unlikely that such arguments outweigh the observed benefits of the change. Nevertheless, simply accepting change without consideration and critical analysis can be disadvantageous and sometimes disastrous. Take the case of Eben Byers, an American steel magnate of the early 20th century. Among other things, Byers considered himself something of a bon vivant and became concerned when in his 40s he found that he could no longer party all night without suffering from exhaustion for the next few days. In a desperate search to reverse this change, Byers began consuming a nostrum called Radithor, which purported to restore youthful vitality (Macklis, 1990). Almost immediately the Radithor seemed to reinvigorate Byers, and so he not only continued consuming the liquid, but increased his intake. He was able to carry on even more than he could in his youth. Although he had no idea what was in the nostrum, it had to be good, because the change was positive.

Unfortunately for Byers, Radithor contained radium and thorium salts, both highly radioactive. Byers' rejuvenated vitality was caused by his body's reaction to the assault of the radiation, an increase in red blood cell production by his bone marrow. This condition, however, could not be sustained for long, and soon Byers experienced dreadful symptoms such as spontaneous fractures. In less than two years Byers died in excruciating pain as the result of radiation poisoning (Macklis, Bellerive, & Humm, 1990). Had Byers endeavored to learn about Radithor and to consider the possible long-term effects of exposure to radiation, which were known in medical circles at the time (Macklis, 1990), then he might have concluded that in this case the disadvantages of Radithor outweighed the purported advantages. Also, Byers proved that what you do not know *can* kill you.

Procedures and technologies have changed considerably during my time as Editor of the *Alberta Journal of Educational Research* (ajer). Doubtless other changes will occur. Concerns over costs and speed of the editorial process have resulted in almost all correspondence and communication being carried out by e-mail. Although this technology continues to be bedeviled by "spam" and software bugs, the positive changes that have resulted far outweigh the limitations. As ajer approaches its 50th anniversary (although we are in Volume 50, ajer is only 49 years old), the request to abandon Roman numerals for the volume has come from several quarters. Although this might seem an inconsequential and trivial matter, the reasons why the change is requested are not.

As with most scholarly journals, **ajer** is listed in many research databases. Most if not all of these use Arabic numerals exclusively. Moreover, if data cannot be imported directly into the database through electronic means, it must then be entered manually. Because this process can result both in errors of interpretation (is XL really the same as XXXX or 40?) and errors of data entry (the wrong key being pressed). Because information in a database is only as good as its accuracy and its retrievability, the change to Arabic numerals seems to outweigh any consideration of tradition.

At the same time, changing too quickly without considering possibilities can also be problematic. In the theme issue on Arts-based Research, 48(3), a CD-ROM supplement was included. This made it possible to include color illustrations, unusual formatting, and other attributes not possible to include in the text-based part of the journal. Although the CD-ROM was an innovative change, it resulted in severe problems, both with postal services and with United States Customs. With the former there was concern that the CD-ROM was a promotional item, which would have invalidated the reduced postal rate ajer enjoys, whereas Customs was concerned that illicit material was being smuggled. The delays and lost issues resulted in that issue costing much more than anticipated. Does this mean that I will avoid further change? The answer is No. However, the examples described here show that change is neither a simple concept nor something that can be categorized easily as *good* or *bad*.

Whether we like it or not, change is a constant, but as educational researchers we must consider change critically. On the one hand, we should not try to hold back change as King Canute allegedly tried to hold back the tide, but on the other hand, we should not jump to adopt every proposed change

without considering possible ramifications beyond what the change is supposed to affect.

References

- Fullan, M.G., & Stiegelbauer, S. (1991). The new meaning of educational change. Toronto, ON: Ontario Institute for Studies in Education Press; New York: Teachers College Press.
- Macklis, R.M. (1990). Radithor and the era of mild radium therapy. *Journal of the American Medical Association*, 264(5), 614-618.
- Macklis, R.M., Bellerive, M.R., & Humm, J.L. (1990). The radiotoxicology of Radithor: Analysis of an early case of iatrogenic poisoning by a radioactive patent medicine. *Journal of the American Medical Association*, 264(5), 619-621.