To the Memory of a Dedicated Teacher

This teacher opened the author's eyes to the exciting world of science.

By C. H. Vanderwolf

The importance of good instruction in science in elementary school may be illustrated by my own career.

I was born of Dutch immigrant parents (Kees and Jantje van der Wolf) who had settled on a farm near the village of Glenevis in the mixed-wood boreal forest region of northern Alberta in 1930.

Since the area had been only recently settled, it lacked many of the amenities of modern life. It was a time of dirt roads and log or wood frame houses with no electricity, plumbing, or telephones. Local transportation and farm work was largely dependent on the horse.

Glenevis East School, which I attended from 1942 to 1951, was a one-room building in which a teacher offered instruction to 20-30 students in grades 1-8.

Although I could read fluently by the time of entry to grade 2 and soon became a skilled contender in the spelling and geography matches which were popular in those days, I disliked school, received mediocre grades, and planned to terminate formal education at the end of grade 8. That was what nearly all farm boys did at that time.

At this point (1949), fate intervened in the form of a new teacher, Gordon Hanson, a 24-year-old bachelor who had grown up in the region. Gordon truly loved teaching and had a special genius for getting difficult children (I fear I was one such) to work hard and co-operate with him.

Above all, Gordon had a great interest in science, especially chemistry. I remember vividly the many demonstrations and experiments which he carried out, very likely at his own expense since there was absolutely no equipment for teaching science in Glenevis East School.

One day, under his direction, we built an electric motor using a small cardboard box, several 6- or 8-inch nails, a length of wire, two bar magnets, and a dry cell storage battery to supply power. How incredible it was to see the thing begin to run!

On another occasion, he placed a loudly-ticking alarm clock under a bell jar and began to remove air from the jar with a hand-operated pump.

The ticking of the clock grew progressively fainter and finally became inaudible. This, he said, proved that air was necessary for the transmission of sound.

"Maybe the clock stopped," I objected. "Let's watch the hands," he replied. The entire school sat spellbound for one or two minutes until it became apparent that the hands of the clock were still moving. Glenevis East School had never before witnessed such things.

Gordon decomposed water into hydrogen and oxygen by electrolysis and demonstrated the characteristic reactions of those gases to a burning splinter of wood (oxygen made the splinter flame up spectacularly, while hydrogen exploded with a "pop" and then burned with a blue flame).

Perhaps his most dramatic experiment was a demonstration of the production of chlorine. I don't remember the exact method, but I think it involved heating a mixture of hydrochloric acid and manganese dioxide.

The heavy toxic gas poured out of the reaction vessel in a greenish cloud, forcing us to open the windows and doors and abandon the school for half an hour or so, until it dissipated.

I was fascinated by all of this and began to think that high school and possibly even university might be a possibility.

When Gordon returned to Glenevis East School in September 1950, he was permitted to teach grade 9 in addition to grades 1-8. This was the only time grade 9 was taught in the entire history of Glenevis East School (1914 to 1953).

I completed grade 9, wrote the mandatory provincial exams, and achieved high grades, plus a medal awarded by the province to outstanding students. This outcome was astounding, not only to me, but also to everyone who knew me.

I attended high school in Onoway, 17 miles away, the next year (1951). This was possible because a new graveled road had allowed the establishment of regular school bus services that year.

I received high grades in high school, subsequently attended the University of Alberta (BSc, 1958) and McGill University (Ph.D., 1962), eventually becoming a professor at the University of Western Ontario where I carried out research and teaching on the brain and behaviour until my retirement in 2001.

I have had a long and rewarding career, an outcome that would not have occurred without the instruction and encouragement provided by Gordon Hanson in 1949-1951.

In late May 1986, in company with my wife Judy, two children Karen and Sarah, and my brother John, I visited Gordon and his wife Maureen at their home in Niton Junction, Alberta. Gordon and I sat talking for hours after dinner. Next morning, we left.

I never saw him again. He died March 14, 1987. I hope the accompanying report, "Teaching Science in the 21st Century: An Examination of Canadian Science Curricula from Kindergarten to Grade 12" may, in some small way, help to perpetuate the memory of a truly remarkable teacher.

(Reprinted with permission from the Society for Quality Education's comparison of Canadian provincial science curricula. The report can be found on the society's web-site, www.societyforqualityeducation.org. ***Alternatively, a free copy may be ordered by contacting 888-856-5535 or*** info@societyforqualityeducation.org.)