



PRACTICAL SKILLS

Students in the Southern Adventist University (SAU) Construction Management program survey the layout for the house the class is building in 2010.

Among educators, there are numerous opinions about the essentials of a good education and how they should be taught. In that discussion, the idea of “practical skills” often comes up, although it’s often not clear just what that means. For Seventh-day Adventist educators, the starting point of the discussion must be the purpose of Christian education. We have been counseled that “The purpose of education is to qualify them [students] for usefulness in this life and for the future life in the kingdom of God.”¹ This idea of usefulness in this life implies some sense of practicality. This article will discuss the traditional concept of “practical skills” and how this applies to Adventist education in the 21st century.

In the early years of Adventist education, this idea of practical skills or “useful employments” was taken seri-

This makes it clear that children are to be taught to be responsible, to participate in the necessities of daily living, and learn useful employment skills. Let’s not let the terminology of an era gone by confuse the issue. For example, the term *manual training* was commonly used in the past to refer to training in trades such as blacksmithing, carpentry, bricklaying, and the like. This term later changed to *industrial training* or *industrial arts*. In more recent times, it has been referred to as *vocational education* which has evolved to *technology education* and/or *career and technical education*. In essence, it is what people often refer to as “blue collar” work and is different from managerial or “white collar” employment. These distinctions were present even in Christ’s day, with the priests and rulers being in a separate class from the common workers.

FOR 21ST-CENTURY STUDENTS

BY RAYMOND CARSON

ously, being based on statements like the following from the book *Fundamentals of Christian Education*:

“When the child is old enough to be sent to school, the teacher should co-operate with the parents, and manual training should be continued as a part of his school duties. There are many students who object to this kind of work in the schools. They think useful employments, like learning a trade, degrading; but such persons have an incorrect idea of what constitutes true dignity. Our Lord and Saviour Jesus Christ, who is one with the Father, the Commander in the heavenly courts, was the personal instructor and guide of the children of Israel; and among them it was required that every youth should learn how to work. All were to be educated in some business line, that they might possess a knowledge of practical life, and be not only self-sustaining, but useful. This was the instruction which God gave to His people.”²

The Value of Practical Skills

Many educators and parents argue that students who do not plan to pursue a vocational career do not need any experience in the practical skills. This line of thinking overlooks the important benefits that this type of training provides. The everyday duties of preparing food, cleaning the floors, and taking out the trash are necessary for everyone, regardless of social status. Our job in education is to convey the value and dignity of such work to our students. It was not beneath Christ to

become a man, and a lowly carpenter in His ministry to humankind. We need to follow His example and understand that any of these humble duties are not beneath us.

But humility and self-discipline are not the only lessons that are to be learned from participating in practical skills. Learning a trade is useful regardless of the career direction of the individual.

“The benefit of manual training is needed also by professional men. A man may have a brilliant mind; he may be quick to catch ideas; his knowledge and skill may secure for him admission to his chosen calling; yet he may still be far from possessing a fitness for its duties. An education derived chiefly from books leads to superficial thinking. Practical work encourages close observation and independent thought. Rightly performed, it tends to develop that practical wisdom which we call ‘common

sense.' It develops ability to plan and execute, strengthens courage and perseverance, and calls for the exercise of tact and skill."³

Here we see a clear rationale for the advice given to the Israelites in Old Testament times about the value of giving students vocational training even though they may intend to obtain academic or professional training. Practical training balances the thinking, enabling an individual to be much more realistic and creative. A mechanic once told me about a car that was designed so that it required several hours of work to remove parts and accessories in order to change the spark plugs. Changing spark plugs is a normal maintenance operation that should take no more than 30 to 45 minutes. Clearly, the engineers who designed that particular car had no consideration for nor experience with the regular maintenance needs of cars. Most likely the engineers were oblivious to the extra work they had created for the mechanics, and the cost to the owners.

Another benefit of this type of training, especially at the high school or academy level, is that it will provide the recipients with some means of support if they pursue higher education. Many students need to work while in college, so having learned a trade will allow them to earn more and find a job more readily than someone with no skills. This back-up plan for earning capacity also comes in handy for people who graduate from college and find it difficult to immediately find employment in their chosen occupation. It would be helpful for them to have a trade to produce some income in the interim.

Fringe Benefits

Providing vocational training for students has numerous fringe benefits. These skills can provide great leisure activities. Woodshop students not only acquire skills that can be used in the trades of carpentry or cabinetmaking, but many find this to be a rewarding hobby. The ability to make or fix things can be tremendously fulfilling and a significant asset to the family budget. Being able to fix a car or make minor repairs is especially helpful in difficult financial times. An additional bonus: People taking vocational training always receive safety training, which

is beneficial throughout their lifetime.

Although the manual training referred to in Ellen G. White's time included some outdated trades like blacksmithing and barrel making, the philosophical rationale is still valid. However, we do need to keep current with technological advances. Providing students practical experiences with honest work that will help them develop common sense is still very important.

Over the past 50 years, Adventist academies have been dismantling vocational programs and school-based industries at a steady rate. Parents and school administrators envision most of their young people going to col-



SAU civil engineer/drafting instructor Rocky Chambers reviews a 3-D computer-aided design and drafting (CADD) drawing with student Steve Olson.

lege, but the reality is that not all students continue on to higher education. These students need career training. But not only students on the non-college track need practical skills. The reality is that vocational programs, or career and technical programs, as they are now called, form an important component of God's plan for education, regardless of the student's ultimate career goal.

At one time, our denomination placed a high value on practical skills and vocational training. We had a showplace of vocational education at Madison College near Nashville, Tennessee, that included a farm, dairy, numerous industries, and a sanitarium. It was established on the principles of providing students with practical



SAU Construction Management students learn to build houses from the ground up.



SAU Construction Management student Ryan Brunnel installs siding on a student-built house.

skills and a means for them to work their way through college and finish without any outside contributions or incurred debt.⁴ Academies across North America emulated the Madison model for many years, providing some various on-campus industries where students could earn their way through school and gain skills in a variety of practical or vocational areas.

Increased Interest in Vocational Training

It appears that the interest in vocational training in our academies may be reviving. A 2004 survey of 42 academies in North America by Southern Adventist University's Technology Department revealed that 86

percent of the academy administrators felt it would be worthwhile to add technical programs to their offerings. At the same time, however, many of the administrators reported eliminating such programs as agriculture, welding, auto mechanics, and drafting.⁵ With many academies struggling to stay afloat financially, funding often is cited as a major issue.

In fact, with a little effort and some fund raising, practical experiences can be implemented at all levels of education. The essential ingredients are creativity and a desire to provide the students with meaningful age-appropriate experiences.

- Younger students can grow plants in pots or in a school garden (see the Nature issue of the *JOURNAL*, February/March 2009). This type of activity would easily fit into a science curriculum.

- The upper elementary curriculum can include consumer activities such as cooking, sewing, and balancing a checkbook, which are needed now more than ever.

- Secondary students are more physically mature and can acquire skills in many occupational areas. Many academy and public high schools offer programs in auto mechanics, carpentry, welding, graphic design, business management, and many other areas.

- Students at the postsecondary level can benefit from intensive programs, which can give them a tremendous edge in the job market. Many colleges and universities have two-year Associate Degree programs in nursing, auto mechanics, and construction management. These programs are comparatively short in duration, but still enable their graduates to obtain jobs that often pay better than

the salaries of four-year graduates. These careers also allow people to earn money to pay for an advanced degree (i.e., B.S. in nursing) or training for an entirely different career.

Benefits Convey to the Academic Program

At the elementary and early secondary levels, educators need to focus on instilling a good work ethic and teaching problem-solving skills in all students. The academic rigor of the program need not change just because practical skills are included in the curriculum. In fact,

fits even for those planning to study for professional careers. The members of our church in rural Arizona were quite surprised when one of the regular church visitors, a medical doctor, offered to do the drywall finishing on a church building project. When asked how he became such an expert in this area, he said that he had financed college and medical school by working in that trade.

If an academy does not have any or very few choices for practical programs, what can be done to provide them? There are many misconceptions about obstacles in the way of implementing these programs, including the cost of facilities and equipment, availability of qualified instructors, and student and parental interest if they were provided. Facilities are expensive to build, especially for industrial courses. Auto repair, welding, and woodworking programs need a host of specialized equipment, but so do computing and science.

Obstacles can be overcome with sufficient commitment and vision. For example, growing plants in elementary school will cost very little to implement. A retired academy teacher recently told me that when a nearby school did not have the budget for an automotive program, he taught a course in small engine repair. Small engines are fundamentally the same as large engines except they are less sophisticated, require fewer tools and facilities, and are less expensive to work on. Schools can use innovative approaches to offer any program that the community and school desire to implement. A carpentry program does not necessarily need sophisticated facilities. Weather permitting, most of the work can be done outdoors and the equipment stored in a medium-sized shed. The school can ask the community to donate tools.

The practical arts class may even pay its own way—junior high students at a school in rural Arizona built numerous storage sheds each year. The modest profits provided funds for materials and tools.

Finding Instructors

Finding qualified teachers may appear to be an insurmountable obstacle, but there are solutions. In the U.S., this shortage of qualified trades instructors has been addressed by most of the states by providing a special vocational certification. The requirements differ slightly from state to state, but generally, a person with several years' experience in a trade is granted a Provi-



SAU student Kirk Shoemaker lays block for a house foundation.

these practical courses often provide real-life illustrations that help students see the applications of the theory in mathematics and science classes.

The best thing about these hands-on experiences is that the consequences of the student's efforts, or lack thereof, are immediate and measurable. A woodworking student who is lazy about sanding will see the results when a varnish is applied and all the scratches show. A cooking student will have an inch-tall cake if she fails to read the recipe carefully and leaves out the baking powder.

Vocational training and practical skills provide bene-



Above: A SAU student in the Graphic Productions class works on an offset press.

Left: Jessica Meeks installs plumbing in a SAU student-built house.

sional Vocational Teaching Certificate to teach in that area. He or she must then earn a certain number of college credits in areas such as Methods of Instruction, Evaluation Techniques, etc., within two years.⁶ One automotive instructor in Arizona obtained his teaching certificate this way, taught several years in the public school system, and later taught courses for an Adventist academy. Often, a skilled individual or a retired person in the church or community can be hired on an adjunct

basis to teach one or more of these courses. Also, there is a popular movement with public and private schools to work out dual enrollment arrangements with local community colleges and Adventist universities.

A Wide Range of Options

Vocational programs are very diverse. In the public sector, programs are being offered in agriculture, business management, marketing, health occupations, computer-aided drafting, computer programming, and family and consumer sciences along with the traditional trades courses like auto mechanics and carpentry. An interesting phenomenon currently occur-

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ring in the difficult job market in developed countries is that unemployed professionals with Bachelor's and Master's degrees are enrolling in community colleges to learn a trade so that they can find work.⁷

Recent research on enrollment and retention suggests that about 50 percent of college students drop out the first year or do not obtain a degree.⁸

Many Adventist colleges also struggle with retention. Coupled with the fact that we know not all academy and high school graduates go to college, we need to consider what happens to the large number of students who do not earn a degree. Survival skills for the interim—or long term—will be invaluable





Pages 44 and 45, clockwise from left: SAU wood-working student Elizabeth Johnson cuts slots for a wooden xylophone; on “Car Care Day,” SAU automotive students offer free automobile inspections for members of the community; and a SAU welding student uses an oxy-acetylene torch. Skills learned in practical arts classes can be used in a career, to finance advance education, or for personal enjoyment.

for these young people.

Clearly, there are good reasons to include practical and vocational offerings in our educational system. We have done it before and done it well. With the downturn in the economy of the United States and other countries, there has been a resurgence of interest in vocational training because these careers usually offer good salaries and benefits. A recent article in *The Chronicle of Higher Education* championed the idea of colleges getting back into teaching agriculture.⁹

Most important of all, practical arts training prepares

students for the realities of life and develops critical thinking (what used to be called “common sense”). Despite the challenges, it is possible to implement, and will provide tremendous benefits for our students. ✍

This article has been peer reviewed.



Raymond Carson is an Associate Professor in the Technology Department at Southern Adventist University, Collegedale, Tennessee, where he teaches computer-aided drafting, welding, and woodworking. Previously, he taught drafting and welding for eight years in a public high school in Arizona, and spent 16 years as a self-employed consultant to rural schools on vocational education issues. Mr. Carson is presently pursuing graduate coursework for his Ph.D. in Career and Technical Education at Old Dominion University in Virginia.

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world, unworthy of intellectual respect. While the Adventist concept of academic freedom protects the researcher and the philosopher in their search for truth,

REFERENCES

1. Ellen G. White, Manuscript Release No. 143: “Counsel on Food, Manual Labor, and Voice Culture in Seventh-day Adventist Schools,” p. 218.
2. _____, *Fundamentals of Christian Education* (Nashville, Tenn.: Southern Publ. Assn., 1923), p. 417.
3. _____, *Education* (Mountain View, Calif.: Pacific Press Publ. Assn., 1903), p. 220.
4. Ira Gish and Harry Christman, *Madison, God’s Beautiful Farm: The E.A. Southerland Story* (Brushton, N.Y.: Teach Services Inc., 2005).
5. Raymond Carson, “Career Choices in SDA Education.” Unpublished manuscript, 2004.
6. Arizona Department of Education, “Teacher Certification.” Retrieved September 16, 2009, from <http://www.ade.state.az.us/certification/requirements/vocational/>.
7. Steven Greenhouse, “More White-Collar Workers Turn to Community Colleges,” *New York Times* (August 19, 2009), Education section. Retrieved on August 21, 2009, from http://www.nytimes.com/2009/08/20/education/20COMMUN.html?_4=1&scp=1&sq=%2bLow*technogy&st=nyt.
8. *ACT National Dropout Rates, 1993-2003*. American College Testing program (2003); retrieved February 12, 2009, from http://www.act.org/research/policymakers/pdf/retain_2003.pdf.
9. Scott Carlson, “News Analysis: Students May Need a Grounding in Agriculture as Much as in the Liberal Arts,” *The Chronicle of Higher Education* 54:29 (March 28, 2008), p. A4.

it does not permit them to destroy the other essential human freedom: the freedom to believe. At the conclusion of all search and research, the teacher and the student must return to their ultimate home: faith.

Adventist educators must recognize that clasping the freedom to reason and explore must not lead to a rejection of the worldview of faith that forms the underlying foundation of Adventist education. Once that is acknowledged, academic freedom no longer regards a faith commitment as stifling inquiry but rather welcomes its guidance in achieving humility and responsibility.

Thus, Adventist education’s stand *vis a vis* academic freedom is both a challenge and a reminder. It is a challenge to pursue research and learning with rigor and discipline, but do so responsibly, recognizing that faith is the bedrock of Christian life and existence. To be reminded of that, and to call upon the teacher and the taught, the university and its community, never to abandon or wander away from the rejuvenating embrace of faith is perhaps the most urgent need of Adventist education today.

—John M. Fowler.

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