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Editorial

Pat Kornelis

Out of the Comfort Zone

Embarking on an issue focusing on technology has put me out of my comfort zone. My ignorance of computer technology seems only to increase while my ten-year-old son's expertise grows by leaps and bounds. I concentrate on basic processing tools; he constructs web sites. I approach new computer tasks with hesitation, sometimes even trepidation; he greets them with imagination and a sense of adventure. We can learn amazing things about ourselves and the education process through the eyes of a child who enters not only the realm of computer technology but any aspect of education with an openness and a thirst that is only quenched by the wealth of new ideas to be explored.

I suspect that many Christian educators can relate to my computer-phobia. Change is difficult for many of us to accept, grasp, or work with. We are comfortable in our roles and in the expectations placed upon us. New ideas, new teaching strategies, and new technology are often perceived as suspect, trendy, and less able to meet the true needs of our students. We may find ourselves resistant to exploring new techniques for a variety of reasons–lack of interest, lack of energy, or even a fear of our own lack of expertise.

However, growth happens with an openness to change. Without professional growth we stagnate. We dwell in mediocrity rather than stretch ourselves toward excellence. The desire for excellence has caused teaching to change dramatically over the past twenty years. Teachers are becoming more comfortable with their roles as facilitators of learning rather than dispensers of information. In many ways education has improved because of our acceptance of new and better teaching strategies. For example, the transition from traditional lecture-based teaching to an awareness of different learning styles has led to techniques such as cooperative learning, portfolio-based assessment, and interdisciplinary learning units. Good educators read educational research, attend seminars and workshops, and take classes to expand their own skills. Growth occurs where teachers enter into the process with anticipation rather than hesitation. Weighing and testing new strategies and even new technology against past practices lends credibility and stability to the learning process.

Growth can be difficult, even painful. Being called out of our comfort zone to address aspects of our teaching that need improvement, entering areas of teaching that seem foreign and uncharted, or even attacking a part of the curriculum where students seem to lead and teachers follow is intimidating, sometimes even humbling. Does that mean we should avoid these aspects of teaching? Of course not. In my classroom I sometimes create situations that I know are out of my students' comfort zone. I do this not to embarrass them or make them feel uneasy, but rather because I realize that sometimes this is the only way to grow and expand, to develop to their fullest potential. Our sinful nature causes us to become complacent and comfortable. But God's Word warns us not to be "lukewarm" but on fire for Christ. That means we are to live life to the fullest and stretch beyond the easy reach especially in our educational process.

Growth leads to strength. When we have gone beyond that which we know and understand easily, when we reach for higher goals, and when we struggle with a problem or situation, we realize anew that our strength and knowledge is finite but God's is eternal. In him we find our strength to challenge and be challenged. Isn't that what Christian education is really all about? ■

Exploring Computing Technology's Role in Christian Education

by Mark Van Gorp

Mark Van Gorp is an assistant professor of Computer Science and Information Systems at Grand Valley State University in Grand Rapids, Michigan.

Have you thought about the role of technology in Christian education? Wow! This topic currently evokes philosophical, moral, ethical, pedagogical, and monetary issues—to name a few. But educational technology has been around for quite some time, right? For example, there are chalkboards, pens, pencils, overhead projectors, televisions, and movies. Yet, it is computing technology that really has raised quite a stir, and it is this technology that I intend to address.

Well, how do I begin to address the vast topic of educational computing technology? Why not use computing technology itself and "surf" to the Christian Schools International web site (http://www.gospelcom.net/csi)? In December and January of the 1997-98 academic year, this site held a small online discussion on the role of technology in Christian education. I would like to comment on just a few of several points raised by this discussion. I hope this will spawn further discussion and thinking on the topic.

Point 1: Where is the research that backs computing technology's support of learning?

This is a good question. Particularly since we, as Christians, are called to make wise decisions about our use of God-given resources. Before putting monetary resources from tight Christian school budgets into the curriculum integration of computers, we must consider if students will benefit educationally as a result. This means examining the educational research on computing technology and learning.

Previous research outcomes are often unclear on these benefits. This is due primarily to the nature of the research: Quantitative research that reduces the complex nature of learning with technology and classroom dynamics to mere numbers on post-tests leaves much unsaid. Further, many earlier quantitative studies were composed of poor research designs that did not account for confounding variables such as novelty.

Yet, current qualitative research designs and a shift in computer usage from the "computer in control of the student" to the "student in control of the computer" are showing powerful and complex learning results. For instance, research shows that students using computer simulations to explore topics before classroom lectures (or discussions) perform better on applying that knowledge to new problem situations given after the lectures. This is in comparison to students who do not use a simulation but who instead use more traditional approaches such as reading explanatory text. However, when the same students are evaluated only on remembering factual information, the results for both groups are similar.

Thus, when considering simulation research, two things are immediately apparent: (1) Evaluating learning outcomes with computers can be extremely complex as results will show benefits at different levels of learning (e.g., see Bloom's taxonomy); and (2) because God calls us to develop the thinking and problem-solving skills of our students, the use of computers must be considered. Incidentally, computer simulations are not mere replacements for experiencing real-life phenomena in God's creation. Rather, they often serve as an excellent introduction to the "hands-on" study of those phenomena.

Point 2: We are not using computer network technology (i.e., the Internet) because of all the smut which can be accessed.

An excellent resource to think about Internet issues is Quentin Schultze's *Internet for Christians*. I agree with Dr. Schultze in that I also use the Internet often (almost daily) and do not run across the smut. I must choose to seek it out first. God gives us the ability to make decisions, and it is our decision in how we use the Internet that may lead us to its dark or enlightening side. Truly, we can use the Internet in a Christian manner, and the Christian educational interactions and social relationships that can be developed through this medium are interesting to contemplate. For example, consider an assignment where farm kids from Pella, Iowa, and Ripon, California, are joined by the Internet: The Pella students interview the Ripon students (or their fathers and mothers) about almond farming, and the Ripon students interview the Pella kids about Midwest grain and livestock farming. The students then write and share papers about their findings. It is ironic that certain virtual activities such as this will likely help students construct a more real-life understanding of a topic than traditional modes of education alone could

provide. Even though the sinful side of Internet technology must be seriously considered, the technology does have much to offer educationally.

Point 3: The computer is really no different than other types of media. It falls into the same class as the overhead projector and the television.

It is true that media are beginning to merge, and the distinction between media such as the television and the computer is becoming blurred. However, there is one basic difference—interaction. I cannot interact with an overhead projector or my current television set in the same way I can with a computer. For example, if I am writing a computer program to solve a problem, I can put my thoughts and ideas directly into the computer. The computer then runs my thoughts and ideas just as I had directed it, and resulting errors of logic or syntax are often immediately determined by examining the computer's feedback. If an error occurs, I need to revisit my thinking, and try again.

This scenario is pedagogically important (and it is not restricted to programming). The computer easily allows students to input their own thoughts and ideas and to reflect upon and examine the results of their thinking. This "thinking about your thinking" is an important critical-thinking skill that is naturally supported by the computer. Further, thinking about your thinking is a skill that runs across all disciplines.

Point 4: The computer teaches well. Students can learn from the computer. The computer destroys social interaction. The computer this . . . The computer that . . .

In reference to the writings of the renowned educational researcher Seymour Papert, statements like these are "technocentric." They ignore the surrounding culture of the classroom and the complexity of educational computing environments. It is how the computer is used that is important. Further, do students really learn from computers? I do not think so. They learn from thinking with God-given minds. The development and nurturing of this thinking, in turn, can be supported by computers. Research shows it.

Point 5: Computers have relatively little place in education—at least not below the ninth grade.

Computers can play a significant role in the education of young students. For example, when computers are used to make an abstract concept more concrete, they provide a strong basis for students to understand and perhaps discover the more abstract concept. This creates an avenue for young students to experience the stage of formal, abstract thinking at an earlier age, and, according to educational theorist Jean Piaget, this is the highest stage of cognitive development a child can achieve. Please see Seymour Papert's book, *Mindstorms,* for continued reading and pertinent research in this area.

Also consider the words of Nicholas Beversluis in his book, *A Christian Philosophy of Education.* He notes that Christian education must seek to develop that which is unique in each student (30) and must promote each student's imagination, innovation, experimentation, and self-expression (60). Not allowing young minds to experiment with those computer software products that foster creative, critical, and complex thinking will not promote the growth of those students whose talents either lie directly in or can be facilitated by computing technology.

In closing, Beversluis also notes that because we are created in God's image, we are given unique endowments for thinking, choosing, and creating (48). We are also called to live in social relationships and to do the world's work (48). I personally believe that computing technology, if used wisely, can greatly support the development of these endowments and callings. Your perspective is perhaps different from mine, but through continued discussions such as those at the Christian Schools International Web site, our views can become more refined and informed as we envision the role of technology in Christian education. ■

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Teachers, New Technology– the Bezalel Principle

by Ron Sjoerdsma

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While on leave from my position at Calvin College for the past year, I served as the director for the new Van Andel Educational Technology School. During that time, I had the opportunity to attend numerous educational technology conferences around the country. All touted the virtues of newer, better, faster, smaller, and more motivating hardware and software. Critics of this headlong rush by schools to embrace (and spend lots of money on) the latest technological innovations were either absent or vilified by keynote speakers. At one conference in Seattle early in the year, I felt as though I was attending a tent-meeting revival as all of us who promised to implement a new approach were asked to stand. As the champagne was brought out to celebrate these new converts and as the music swelled, an unseen force seemed to lift me out of my seat—I was going to change teachers, better educate children, change the world.

Later, in a more somber moment, a keynote speaker suggested that the biggest challenge would be to convert the teachers and then to get them to implement and integrate the new learning and teaching tools. Teachers are the barrier to accessing this brave new world. The speaker then introduced us to a teacher who had once been a technology barrier. Her story was one of initial frustration and failure until she made an amazing discover: her students could lead. They not only eagerly anticipated any time spent with new technology, they showed acumen in a matter of days—if she was just willing to let go of her control.

In the midst of my conference euphoria I thought, like others I expect, that that was the heart of the problem. The new generation of students doesn't need teachers to teach them how to use new technology tools. They just need to be released to play, to discover, and then to learn. After all, aren't they the ones born into a techno-environment? And this thinking seemed to fit all too nicely into a constructivist framework where the teacher can act as the guide, the one who provides the stimuli for inquiry.

Fortunately, a number of old and new voices broke through this misty thinking. The first voices began on the flight home from the Seattle "tent-meeting" conference. They were the old voices, the ones I had relied on as I took my first steps as a Christian teacher: "Train up a child in the way he should go" (Proverbs 22:6), "Teach them to your children and to their children after them" (Deuteronomy 4:9), and "A student is not above his teacher, but everyone who is fully trained will be like his teacher" (Luke 6:40). Undeniably, this training and teaching involve some discovery techniques used by the teacher, but the intentionality and the active teaching verbs were missing in the turn-it-over-to-the-kids method seemingly advocated at the technology conferences.

There were also newer voices, some coming out of current research on educational innovation and school change. In their summary work on school reform, Bullard and Taylor (1993) emphasize the critical need for teachers who are instructional leaders, teachers who make dreams come true in schools that want to improve.

Thomas Armstrong (1998), in his little book *Awaking Genius in the Classroom*, suggests that the teacher is the starting point for developing a child's abilities. While the book reads more like pop-educational psychology than solid research, Armstrong rings true when he suggests that the first step in awaking genius in children is to have teachers reawaken genius in themselves. Perhaps the notion that computers motivate children must be questioned if teachers don't first find them equally engaging.

The Apple Classroom of Tomorrow ten-year students suggest that programmatic success is dependent on teachers developing computer knowledge and skills and receiving regular training in how to integrate new technologies into classroom practice (Sandholtz, Ringstaff, & Dwyer, 1997). The researchers note that training needs to be more than just an occasional summer workshop in computer skills. Rather, teachers need what their students need: lots of practice harmonizing concepts and skills with classroom practice.

Integrating my early biblical understanding of teaching with current research about educational change and educational technology came together for me when Elmer Yazzie, a Christian

artist and teacher, reminded my students that he begins with the Bezalel principle when trying to understand the relationship between teacher and student. Exodus 35 reports that Moses presented Bezalel to the Israelites as one who was spirit-filled and endowed "with skill, ability, and knowledge in all kinds of crafts" (35:31). Bezalel had special gifts, along with Oholiab, to be able to create the wondrous tabernacle built to God's specifications. But I find it particularly interesting that Moses didn't then require that Bezalel and Oholiab do all the artistic work while others stood around in awe of their abilities—that's certainly what I do when encountering a gifted artist. In fact, from my earliest school days, I dreaded art classes because I couldn't draw or design or color or paint. I needed a Bezalel, not just to be someone to hold in awe, but, as Exodus 35 later informs us, one who had the God-given ability to teach others (verse 34). My picture of this process is that Bezalel did a lot of mentoring during the first weeks of instructing, developing, and guiding the abilities of those willing to work (Exodus 36:2).

I remember an incident in my early days of transitioning from typewriter to word processor (a good decade ago). I had a colleague who had been computing about six months before I began. He seemed to have a natural ability with the machine that, I was certain, was beyond me. Because we were using the same software, he'd regularly suggest short-cuts he was learning, particularly related to function keys. The secret to his success was that he stuck with the short-cuts long enough to master them, and he encouraged me to do the same—in fact, he regularly asked me about my progress. We started with that mentor/mentored relationship, but it eventually developed into an equal teaching and learning partnership. I always perceived my friend to be the master, but I was eager to show him what I had discovered. I can imagine a similar relationship at the base of Mount Sinai as Joe Israelite showed Bezalel a clever method he had discovered for simplifying the production of the fifty bronze tent-clasps.

What I'm suggesting is that teachers who are computer novices need regular and immediately accessible support as they begin to integrate technology into their classroom teaching and project planning. The technology Bezalels of a school should be partnered with the novices, perhaps based on grade levels or subject areas, and a regular schedule of training should follow. Some creative scheduling would need to occur, and some easing of teaching loads for a few might be necessary. But if teachers are going to continue to enhance their teaching skills with new tools for learning and instruction and not be left in the dust by eager students, schools need to invest significant time and money into the teacher training portion of their technology plans. Those training dollars can be stretched by using the already talented teachers who have skill, ability, and knowledge in all kinds of technology.

"But if teachers are going to continue to enhance their teaching skills with new tools for learning and instruction and not be left in the dust by eager students, schools need to invest significant time and money into the teacher training portion of their technology plans."

It seems creationally backward to turn over the understanding and use of educational technology to students so that they can "train up" themselves. I wish I had stayed in my seat at the tent-meeting in Seattle.

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Village Life in the Technology Age

by Lois Brink

Lois Brink is the librarian/information specialist and curriculum coordinator at Grand Rapids Christian High School in Grand Rapids, Michigan.

It takes a village to raise a child, they say, and we could add, it takes a village to put current technology into a high school program. It also takes some village leaders who assume special roles during this process. Because our school is midway through this process, we can stand in the village square, look back, and reflect on our collaborative efforts.

We began our high school technology projects in 1991. In January 1998, we received word of an anonymous donation to be used toward upgrading the computer technology in our high school, and a flurry of new technology projects began.

Planning ahead

Our district had several factors in place so that when this funding came, we were ready to begin our technology project. First, there was an established structure for staffing positions and responsibilities within the school district. We have a director of technology development at the district level. She assumes responsibility for planning and coordinating our districts' technology purchases and directions. Also at the district level, our superintendent had created a development staff, which includes our director of technology development and a director of curriculum development, who focus on funding, communication, and instruction.

At the school level, we have building technology coordinators, who are educators responsible for working with staff and administering the computer labs, and technology aides in each computer room, complemented by library/media specialists (now information specialists) and library/media aides, who work with students and do routine maintenance tasks.

Second, we have a process and structure for collaborative decision making at the school and district level. This structure includes three key committees (which include key people from each school: teachers, principal, technology coordinators, and information specialists.) A technology advisory committee, consisting of constituents employed in various technology occupations on network, gave us recommendations about hardware and our network. A District Technology Planning Committee developed the K-12 technology plan and advises on its implementation. Building level Media Technology Committees identify and prioritize hardware, software, and implementation directions for each school. Each committee member and technology staff person keeps in contact and consults with other staff and committee members.

Third, we have a district technology plan, which described the different phases of implementation and sets hardware priorities for the district and for individual schools. The plan includes both communication and instructional technology, and components of the plan follow the model created by our State Office of Education. This allowed us to proceed to raise funds and budget for parts of the plan at both the district and building levels.

Finally, we had the flexibility to collaborate with local businesses that could help us envision and implement this technology plan. One result of this flexibility was our decision to put in the infrastructure for voice, video, and data into each school building, which allows each school to have some options for hardware directions. Another result was our providential partnering with a local business that specializes in systems integration for schools. This company advises us on equipment and software for our network and work areas, designs and develops our local and wide area networks, and provides us with training and technical support. The collaboration between voice-data systems and systems integration allows us to implement our plan with flexibility, make necessary changes, and utilize technical expertise and support.

Technology implementation

When the donation came, we were ready to make the first phase of the high school component of our district technology plan a reality. The plan called for facility renovations for three computer labs, a mini lab in the library media center, and several satellite work stations around the school. Our computer networks were upgraded and expanded with Internet capabilities. We needed new computer equipment and expansion of our computer software. Finally, we expanded our library media resources to the computer network through the school. At this point our committee work had ended and several leaders assumed responsibilities for supervising the facilities renovation and setup; for working together with our systems integration team to set up the hardware, software, and the network; and for making financial and staffing decisions.

The first computer lab was completed by May 1 and the other labs and stations would be ready for school opening in late August. This was a good step to take. With one computer lab up and running, we were ready for some limited student use during the last weeks of school. Students provided testing of the system "under fire." This resulted in some summer refinement of the network, our workstations, and Internet access. The lab allowed us to begin staff training during the end of the school year and summer vacation.

Staff training

After some trial and error, we have developed a format for in-service training that is based on Choices and Chunks. We used a staff survey to identify specific areas of technology training needs and expertise for each teacher. This survey was compiled in the spring, revised, and re-administered in September. It is used to plan and place teachers into each training session of their choice.

Our training program begins with general introductory sessions to our Microsoft Office applications and Internet use since our staff is expected to use these for class assignments. These are offered through the school year and during summer sessions. Training on specific technology, such as our digital phone messaging system training, our E Class grading program, and Windows 95, is offered as well. We found from our survey that some teachers had no Internet experience, so we developed layers of training in this area: a basic exploration of the Internet, Internet search and information storage techniques, with advanced user sessions coming on web page design for schools, advanced e-mail storage and retrieval, and group collaboration on the web. Members of our own staff—our technology aide, our coordinators, the curriculum and information specialist, and several teachers—present these sessions. The second year of staff training will include a full day of choices for training during first semester and a day of planning for integrating this technology into our curriculum during our second semester.

Technology affects curriculum

During these months, our high school curriculum council, led by our principal and composed of department chairs and administrators, made some important decisions precipitated by the availability of new technology. These decisions began our steps toward collaborative curriculum development and instructional uses of our new equipment and computer applications.

One decision was that all staff should be familiar and comfortable with our new equipment and software applications. Our faculty is expected to use our applications and equipment, with help from our tech aides, for their record keeping and class preparation, for instruction in the classroom or labs, and for student assignments. Our staff training program is based on this expectation.

Another decision was to approve the change in the business department's course offerings. These now include new computer applications in all its offerings, both specialized business courses such as accounting, and specific computer applications courses. Our introductory course name changed from Typing to Keyboarding to Computer Applications 1. Students will be introduced to Microsoft Office programs and to Internet skills. The energy and leadership of our new business/computer applications teacher was crucial here. Another decision we made was not to require a computer applications course for all students. Instead, we chose the path of expecting and encouraging students to take our basic computer applications course, a responsibility the counselors would take on.

> "The students are the focus for all this planning and effort. We expect them to use this technology thoughtfully and intuitively for careful research, creative responses and applications of thought, reflections, inspiration, and responsible communication."

Finally, we agreed to spend this first year integrating the new technology and computer applications programs into our assignments and our courses. Later this year we will review our efforts and plan for the responsibilities each department would take on as a formal part of their curriculum. We are trying an "integrated approach" to teaching and using technology applications.

How might this integrated approach look? Each course or department selects some computer applications to use in their class assignments. Speech and history courses might expect their students to use PowerPoint presentations. Math and economics might teach Excel spreadsheet use and integration into word processing documents. History and advanced compositions might teach Internet search strategies. Foreign language might use collaborative projects and e-mail storage and retrieval techniques. Science might use Access data management programs. We expect that integration begins in the assignments that teachers give and continues into their instructional techniques as classroom equipment becomes available.

Teachers who are more comfortable with these applications will infuse these into their classes. One advanced composition teacher will use peer editing from students' writing folders stored in the computer and writing models from the Internet on the network. Another science teacher will assign plot studies with data predictions from a science application program. Students will use our Microsoft programs' charts and tables to compare and contrast topics in history, geography, religion, and many other courses. Math students will continue to use computers for all kinds of storage and wonderful applications.

Staffing and students

What part of the village is most important? The staffing of the facilities is crucial to the successful use of technology in class assignments and teaching. Our school district has realized the essential need for aides and support staff in all support areas. We have increased professional

technology coordinator "time" and aide "time." At the high school we have an excellent technology aide who knows computers and our applications programs, assists students and staff in the lab, and provides comfortable and careful use of our computer labs. In the three labs and in the library media center, the presence of media and computer aides is very important. We also expect to hire a part-time computer systems coordinator who will also be our web manager.

The students are the focus for all this planning and effort. We expect them to use this technology thoughtfully and intuitively for careful research, creative responses and applications of thought, reflections, inspiration, and responsible communication. We encourage their learning experiences with technology. But we also implemented an acceptable use policy for all computers, an Internet filtering system, the secure management of facilities and for computers, and web management policy.

We are planning to introduce all our students to this new technology within a semester, not a small feat for a school of 1200 students. It will take many members of our staff village to arrange this. The social studies/religion and the English departments cooperate with the information specialist and technology coordinator to introduce the computer network to students in grades ten through twelve. We will probably use a scavenger hunt to show all the applications. After that, most research projects will begin with computer searches and end with computer word processing or computer presentations.

Our ninth graders will receive instruction on our word processing program and our new reference and research tools, which include the library collection, magazine indices, and Internet searches. They will spend a week applying these in religion, history, and English class assignments.

Village mentality as a sense of community

As we look back, we see the importance of careful planning, adequate staffing, collaborative efforts, and focused funding efforts. As we look around, we see three new computer labs; a school wired for voice, video, and data; a new digital phone messaging system; a new network that includes library access and reference tools, various workstations for counseling, science mini labs, yearbook and school newspaper publishing, and teacher work station areas. What a reason for thanksgiving!

And we enter the new school year and second part of our technology program with hope and expectation. Our assignment is the integration of this new world of technology into our class assignments and into the curriculum. It will take the whole village. ■

Home or Schooling for Covenant Kids?

by Tom Mulder

Tom Mulder is the principal at Stephenville Christian School in Stephenville, Texas.

This summer, I received a disconcerting phone call from Kansas. A business-like voice informed me that the caller and her family planned to move soon to Stephenville because her husband had taken a transfer to Texas. She further identified herself as a Reformed Christian.

"Well, welcome," I responded. Among Christians, we're a minority hereabouts. I wondered whether her faith carried over to any children's schooling. Her next question stopped any further speculation:

"Could you please direct me to any local homeschoolers?" She had no interest in learning about our Christian school, our philosophy, our program of study.

"Why had she called me?" I wondered.

In her eyes, we were allies, homeschoolers partnered with the Christian school, together unified against what she considered the "educational evils" of public schooling. She assumed that the Christian school and Christian families who homeschool share a mission. She considered us Christians in cahoots.

Christians in cahoots

It's easy to see where she received this conception. Clearly, the Bible states that it is the parents who are required to train up their children in God's precepts (Proverbs 2:1-6, 3:1-2), instill in their children a salvific fear of the Lord (Psalm 78:1-7, Proverbs 22:6), and incorporate their faith into their daily walk—communicating it regularly to their children (Deuteronomy 4:9b-10, 6:6-8, 11:18-21). Ultimately the parents are accorded God's authority over their children and are held accountable by God for their children's upbringing. In choosing to homeschool, parents are standing squarely within their biblical prerogatives to oversee their children's godly upbringing.

Many Christian schools have acknowledged this prerogative by adding homeschooling divisions to their schools' ministries, inviting homeschooled children to participate in programs such as athletics and field trips, or accepting their enrollment in individual courses such as mathematics or Bible. One administrator from Oklahoma suggests addressing homeschool moms in an initial get-acquainted meeting as "fellow teachers" because, he remarks, "They really go for that."

When Stephenville Christian School opened in 1993, one of our school's goals was to court the growing number of area homeschoolers, many of whom choose to do so for overtly Christian reasons. Several families did indeed join the Christian school, and many continue to inquire about our mission and programs. We invited homeschoolers to participate in our annual track-and-field day at the local university, and we have collaborated to form an after-school band in our school auditorium.

Many Christians see the Christian school and Christian homeschoolers as swimmers kicking in the same direction in parallel lanes. Indeed, it is good to be good to fellow Christians after all, especially when they make up a sizable and influential part of the local Christian community. But is our mission the same?

Too focused on the family?

While the Bible makes it clear that it is primarily the parents' responsibility to see that children are raised according to biblical precepts, it doesn't stop there. The purpose of parental training in godliness, the Bible insists, is to prepare our children for service to the greater community of Christians. We see to the instruction of our children so that, all together, we may build up the greater family of God. Our focus belongs properly on the whole Christian family, and each individual family is best understood in the context of this whole. For we are all members of God's family (Ephesians 2:19).

When we baptize our children, we enter them into the collective covenant of the church congregation, promising together to look after the faithful instruction of our church's children in God's way, promising to enfold all our children in the promises of the ages, promising all this in the presence of an eternal great host of witnesses. And we promise by implication to draw on the talents of those called of God as pastors and teachers (Ephesians 4:11-12), using the vocations of every member to build up and lift up our children, so they in turn may be equipped to build up and lift up the family of believers.

This is a perspective that accounts for both the forest and the trees. Furthermore, this forest perspective helps us to regard all Christians as members of one body (Ephesians 4:4-6), bricks cemented together to form one temple (Ephesians 2:21), and citizens of God's kingdom (Ephesians 2:19), as well as siblings adopted into God's family. God's impetus is toward unity and community. He draws his people together to strengthen the body, build up the temple, promulgate the kingdom, and expand the definition of *family* to encompass multitudes of his adopted children.

God's track record indicates a pattern

of building and blessing, of calling individuals and families, such as Abraham and Jacob, so that he may build on them and bless through them whole nations and peoples, such as Israel. A small band of Jesus' disciples is multiplied beyond imagination, and beyond racial and national boundaries, to form a global church. God seeks and then blesses whole nations and peoples in a way that he does not bless families and individuals. His presence is experienced by groups and communities in a way that no individual or individual family can experience (Matthew 18:19-20). Certainly, families do receive blessings. The Christian school, in that it convenes in the name of Christ and participates in God's promises to its covenant Christian families, multiplies their blessings. And our families who are involved in the Christian school share in these multiple blessings.

Instead of swimming in parallel lanes, the Christian school and Christian homeschoolers are kicking in separate races. The homeschooled family focuses almost exclusively on the atomic family unity. (Some homeschoolers, however, do form organizations of families who draw together numbers of families—if only to form a choir, a basketball team, or a drama troupe; when they pull together, instead of apart, I acknowledge and applaud their efforts.) Still I wonder, looking from the position of a Christian school principal, whether homeschooled children can help but grow up believing that it is their Christian faith that pulls them away from others, even other Christians. Where will homeschooled children learn to recognize believers of other denominations as brothers and sisters in God's family? Where will they realize the catholicity, the unity of all believers?

Both the Christian homeschool and the Christian school recognize the parents' responsibility to see that their children are instructed to follow God's way. Both the Christian homeschool and the Christian school seek to protect their children from the wiles of the world during their formative, training years. And both the Christian homeschool and the Christian school seek to instill an all-pervasive, Christ-centered world-and-life-view within their children.

The Christian school, I maintain, has a broader view of Christian covenant, because it reaches beyond the immediate family to enfold the whole church congregation, and even the whole Christian interfaith community, the greater family of God. The Christian school, therefore, lays a stronger claim to the collective covenant promises of God to his people. In addition, the Christian school teaches kingdom citizenship more effectively because it communicates it in the context of a vibrant community of Christian learners who are together seeking to live as members of God's kingdom. The Christian school does a better job of corporately communicating the covenant and collectively living in the kingdom.

There are secondary considerations as well: Does the homeschool make allowance for the ranges of children's social, cognitive, and physical development? Is the homeschooled family held accountable to the broader Christian community? And, on the other hand, is the Christian school kept affordable and accessible to a majority of its community? Are the Christian school's values uncompromisingly biblical and its vision faithfully communicated? As important as these considerations are, they remain subordinate to the greater issue of covenantal, kingdom-training and instruction.

Now how would I communicate all of that philosophy in a ten-minute, long-distance phone conversation with a woman in Kansas?

"Have you considered Christian schooling?" fostered a resounding silence from Kansas.

"But we can't afford a Christian school," she responded, without pausing to inquire as to our tuition fees.

The bottom line, after all, was her bottom line.

The onus is on us

Are we in Christian schooling too timid about laying claim on the promises of the church and kingdom? Are we hesitant to lay hold of God's covenant with families and nations? We must not hesitate, for the Christian school shares the church's and the family's authority. The Christian school is interdependent with both and integral to the building up of both church and family—and increasingly so in today' deteriorating and demanding cultural contexts. Working together, church and home and school, the whole family of God, the whole body of Christ, is strengthened and enabled.

It is time we stop considering the Christian school just another shopper's selection, a delectable and delicate dessert on the smorgasbord of schooling options. Rather, as Reformed Christians committed to the faithful training of our covenant children, let us treat our Christian schools as we would pearls of great price, supporting them unflaggingly with our prayers, our resources, our talents, and yes—our children. ■

An Easter Memory: For Ken Kuiper

by Elizabeth Vander Lei

Elizabeth Vander Lei teaches in the English department at Calvin College in Grand Rapids, Michigan.

Maundy Thursday: Standing outside my office door, Tom and Gary tell me that you're no longer taking food or water. "This is the end," Tom tells me, and I believe him. Tom knows many things: the way to fatten a pumpkin with sun-warmed milk and a syringe, the story of the woman who operates that little hamburger stand on Leonard Street, the names of defunct CRCs as well as the folks who now possess those cast-off sanctuaries. Today, even Tom doesn't know your mind. What is it to inhabit a body that no longer craves food, water? On this day Christ shared his last meal with his disciples, but you're not up to such feasting. I retreat to my desk. Watching the birds at the feeders that hang from your office window, I cry.

I suppose some would be surprised at my sorrow. You were never my professor, and we shared the view of your birds for only a few months. But others know me better: my tears are never far away. So, it's not surprising that your dying, during this holiest of weeks, would provoke my tears. You and I know that we shared my tears once.

Labor Day, and the office was empty except for you and me. I was cobbling together a syllabus for a course I'd never taught before; you were tidying up, typing letters and talking into a tape recorder. You were surprised I was in and wondered what my family was doing without me. I was a bit flip (I thought it sounded brave without being overly heroic): they were having a boys' bonding day. "Do you drink coffee?" you asked and brewed me a pot. "Come by after the coffee's done, and we'll have a chat." I waited a while, to be sure I wouldn't disturb your work. You fetched me with your tea in hand: "Are you ready for that break now?" From a desk drawer you pulled a package of cookies, already opened. You told me stories of your career at Calvin: students whose lives you'd changed and students who changed your life. Then you asked about me.

I didn't know until recently why I cried then. I think you knew, but you didn't let on. I was scared. Scared I wouldn't live up to the place, to the people who built it, to the students who were moving in. Scared to call former professors (whose stature had only grown during my years away at graduate school) by their first names: Tom, Jim, Bill, Clare. Scared that I'd forgotten all I'd known during the two years I stayed home with my kids. Scared I'd never learned enough in the first place. Scared to see my kids clinging to someone else's legs as I left for work each day.

You looked out the window at the birdfeeders and waited out my tears. After a while, without turning to me you said, "Beth, do what needs doing. The rest will fall into place." Your words weren't particularly profound, but your compassion buoyed me during those first frightening weeks. As September faded into October your steps slowed as they passed by my office door. Soon after your traditional fall treat of cider and donuts appeared in the English department conference room, you entered the hospital. You never came out.

Good Friday: While reading student journals, I keep my office door open, listening for updates on the deathwatch from Saint Mary's Living Center. Two weeks ago, Tom took me to visit you there. "You should stay for only a few minutes," Tom told me. "I'll go for a walk and fetch you." Uncomfortable, I chattered about the birds at the feeder and the weather. You struggled to interrupt me: "How are your students this semester?" You listened closed-eyed and grinning as I told you about my new plans for freshman composition. Tom came back. "You look tired, boss," he said to you; "we'd better go." As I moved to leave, you struggled to raise your hand from beneath the blanket so that you could shake mine. "It sounds like you're doing fine, Beth. Keep up the good work."

Today, outside my office door I hear students complaining that Grand Rapids Community College has a whole day off while we at Calvin commemorate Christ's death with only a half-day reprieve from classes. I question their sincerity until I secure a seat in the auditorium for the Tenabrae service and watch columns of students turn away because there is no room for them inside. The passion of our singing intensifies as the shadows deepen in the auditorium. As the Christ candle leaves the auditorium, the absolute darkness stuns me. Students, faculty, staff: seated together we experience the darkness of the shadow of death alone. In the silence my thoughts turn to you. Do you thirst, Ken? On this day, even Jesus cried for something to drink.

Easter Sunday: I wake early today and watch the dawn lighten my room. What light do you see this day, Ken? At church the minister preaches on Luke 24, which records the angels

admonishing the women at Jesus' tomb: "Why do you look for the living among the dead? He is not here; he has risen! Remember how he told you, while he was still with you in Galilee." Our task, the minister tells us, is to remember what Jesus told us. We must keep the memory of Christ's resurrection and Christ's words alive, to pass the Easter memory on to the next generation. And I start to think about you differently. I think about the stream of faculty who walked past my office and into yours. What grace did you dispense to them? What was the source of your quiet generosity beyond your supply of cookies? I think of the Kuiper Seminar. Years ago, you touched the life of a student. Recently, she thanked God and you and Calvin College by funding a faculty seminar (with your name on it!) that provides Calvin professors both time and resources to investigate our calling as Christian scholars and educators. In that seminar I learned so much; I'm a better teacher now because you were an excellent teacher then. How is it that you influenced so many? One answer comes from the Luci Shaw poem Dean Ward read at the Tenabrae service:

Judas, Peter
because we are all
betrayers, taking
silver and eating
body and blood and asking
(guilty) is it I and hearing
him say yes
it would be simple for us all
to rush out
and hang ourselves

but if we find grace
to cry and wait
after the voice of morning
has crowed in our ears
clearly enough
to break our hearts
he will be there
to ask us each again
do you love me

You loved him well, Ken, and because of that you loved each of us, too. Now we are here without you, teaching as you taught us. Thank you. Thank you for making the Easter memory live for us and through us for our students. It is finished, Ken, and in the world-without-end it is never finished. ■

Kenneth W. Kuiper, Professor of English at Calvin College for more than thirty-two years, passed away in April. Elizabeth Vander Lei's article relays to us the gift of his long teaching life and influence at Calvin. I'm using this medium to remind CEJ readers that a good part of that teaching and influence came through these pages for more than twenty years. Most readers didn't know that, of course, for his identity was carefully disguised as a mere "K" in "H. K. Zoeklicht," the elusive author(s) of *The Asylum.*

I don't know how many teachers Ken trained and influenced as adviser, classroom teacher, and college supervisor of practice teachers in English; there must be a great many out there, including a considerable number of CEJ readers. I'm sure they remember him with gratitude. For Ken had a passion about good teaching and much wisdom about the big as well as the small issues that challenge and sometimes defeat teachers.

That's why he made an ideal partner for writing *The Asylum* column. Issues such as the tail of sports wagging the dog of classroom education, incompetent administrators, a lack of professionalism, and low teacher salaries would really get his creative juices flowing. Then the old L. C. Smith manual typewriter would be pounded into a fury until it smoked. But the L. C. Smith has been silenced now.

A year ago *CEJ* featured Zoeklicht's story, with an accompanying picture of H and K amusing themselves over dozens of columns that through the years engaged their wit and occasional wisdom. Ken was still fully involved then in the work of teaching and mentoring that he loved so much. For nearly fifteen years, much prayer, the grace of God, the skills of medical science, and an indomitable will impeded the inexorable progression of amyloidosis. By last fall it became clear, however, that Ken had become too weak for classroom teaching. But still his faith, courage, and good humor never failed him. Even during his six months of steady decline he taught and influenced us to live life with dedication and joy, and to face death, when it comes at last, with fortitude and peace.

I, too, with all his former students, am grateful for the life of Ken Kuiper: for his good gifts of friendship, warmth, humor, intelligence, insight, and wisdom; for all the ways, beyond articulation, that his life touched my own and made it better. ■

Henry J. Baron

Faith, Reason–the Art of Christian Education

by Karl Nielsen

Karl Nielsen teaches English and media at Durham Christian High School in Bowmanville, Ontario.

> Earth is crammed with heaven
> And every common bush afire
> with God
> But only he who sees takes off
> his shoes
> The rest sit around and pluck
> blackberries.
>
> *Elizabeth Barrett Browning*
> "Aurora Leigh"

Picasso once called art "a lie that reveals the truth." By this, I think he meant that art connects imagination and understanding in such a way that profound truths about ourselves and our worlds emerge. Works of art are versions of reality, and when we encounter them, we naturally try to make sense out of them. In the negotiation process that follows, we often arrive at a kind of knowledge that seems to transcend the work itself. Stanley Fish examines an interesting example of this in John Milton's *Paradise Lost.*

Having lost the war in heaven and been expelled, Satan understandably finds the idea that God created him and continues to sustain him—even in his rebellion—unthinkable. So he rationalizes it:

> . . . who saw
> When this creation was? . . .
> We know no time when we
> were not as now;
> Know none before us, self-
> begot, self-rais'd
> By our own quick'ning power
> (V.856-61)

Without hard evidence to the contrary and intoxicated by power, Satan concludes that "he must have made himself." Any other view does not serve his purpose. Later in the poem, we encounter Adam pondering his origins. Like Satan, he recognizes that he has no knowledge of how he arrived in Eden, but his reality leads him to a very different conclusion about his genesis. Gazing in wonder at himself and his surroundings, Adam decides that the cause of his being cannot be himself but must be "some great maker" (VIII.278). Eventually however, Satan convinces Adam that his point of view is irrational and therefore false. Defeated by satanic reason, Adam falls and is banished from the garden.

Students (and teachers) of literature routinely suggest that Milton juxtaposes Adam and Satan to emphasize the larger conflict of faith and reason. The gist of such approaches is usually that reason and faith are perpetually at cross purposes with one another—that they are distinct and separate ways of knowing, and people are always in the position of having to choose one or the other. But of course this begs an important question: *must* the acknowledgment of one presuppose the denial of the other? Or is there some way we can have our cake and eat it too?

Perhaps it is worth mentioning that *both* Satan and Adam respond rationally to their circumstances, that is, they try to make sense out of them. For each, reason both compels and produces an explanation of his existence. It is equally true that *both* characters appear to ground their reasoning in faith. Adam's conclusion rests upon the assumption that an omnipotent creator *could* exist. Satan's rests on a self-centered unwillingness to accept that anyone could be greater or more powerful than himself. Adam believes in a reality that transcends the senses; Satan suggests that what we know empirically is all there really is to know. And these initial value statements shape the perceptions and behavior of each.

In this light, faith and reason are not necessarily separate and distinct ways of knowing locked in a perpetual competition for dominance. Rather, they form a unified whole which "knows" nothing apart from the operation of both. But this model is somewhat controversial. C. S. Lewis once wrote that we tend to perceive reality in two categories—the scientific and the supernatural—and that we stubbornly refuse to consider both categories in the same context. The separation of fact and faith carries a good deal of cultural weight today. Even a cursory glance at dominant discourses such as evolution—which dictates the separation of scientific "fact" from faith in the supernatural and privileges the first above the second—confirms this. To challenge such a sacred cow is, in most educational contexts, to invite ridicule (or worse). Yet, ironically enough, scientists themselves are beginning to acknowledge that the fact-faith split is practically impossible to sustain.

In 1996, Lehigh University biochemist Michael Behe published *Darwin's Black Box: The Biochemical Challenge to Evolution*, in which he attempts to demonstrate that the "irreducible complexity" of cellular structure and function proves that the cell could not have evolved in small increments over large periods of time, as evolutionary theory maintains. Behe also points to the "eerie" lack of specific explanations of the evolutionary process in professional literature: "Absolutely no one . . . has published any detailed . . . explanation of the possible evolution of any . . . complex biochemical system." Behe's book charges that evolutionary theory is not the product of a detached examination of facts—the evidence of things seen—but rather a rationalization that

rests firmly upon an initial belief; it is fundamentally grounded in philosophical preferences, not scientific inference. A recent article in *The New York Times* illustrates this idea by describing the Big Bang theory as, "a piece of buggy software with one patch slapped on top of another in a desperate attempt to keep it from crashing," and then mystifyingly offering the prediction that since there is "no other remotely viable" explanation for the creation of the universe, the theory will most likely continue to enjoy favor. Those committed to rationalism cannot help but arrive at their conclusions because these conclusions are dictated by their ideology. Any other possibility is, quite literally, unthinkable. Behe, on the other hand, begins with no such bias against the supernatural, and arrives at a conclusion that leaves room for an "intelligent designer."

In John 9, Jesus heals a man born blind. One of the most interesting aspects of this passage is the attention John pays to the reaction of the Pharisees. It is clear from the outset that they have decided previously Jesus cannot be divine. This decision is, no doubt, based in part on a self-interested desire to maintain a philosophical-religious system that has provided them not only with a good living but a good deal of social status as well. When the man refuses to confirm their agenda, they summon his parents and ask: "Is this your son? . . . Is this the one you say was born blind? How is it that now he can see? The significance of the couple's rather odd response," . . . we don't know . . . [a]sk him . . . [h]e is of age; he will speak for himself," is carefully explained by John: "They said this because they were afraid . . . for already the Jews had decided that anyone who acknowledged that Jesus was the Christ would be put out of the synagogue." Returning again in frustration to the man, the Pharisees make their terms quite clear: "Give glory to God . . . We know this man is a sinner." Burdened as they are by an ideology which precludes the divinity of Jesus, the Pharisees must rationalize his miraculous ministry. In stark contrast to this is the healed man, who begins with no personal agenda beyond that of becoming whole. Because of this, the explanation he offers, "whether he is a sinner or not, I don't know . . . [o]ne thing I do know. . . I was blind but now I see" quickly becomes a confession: "Lord, I believe."

Like *Paradise Lost* and *Darwin's Black Box,* John 9 demonstrates the inseparability of understanding and belief. Belief structures (held consciously or otherwise) determine not only what the "facts" are, but how they are understood and what responses will be made to them. This idea has very definite implications for Christian education.

The drama of Paradise Lost, Darwin's Black Box and John 9 plays itself out in our classrooms every day. Like Adam, Darwin, or the blind man, our students are conscious of their existence, but most struggle when it comes to putting wheels on life's most important questions: Who am I? Why am I here? What should I do with my life? Where am I going? Our materialistic consumer culture plays the devil, enticing students to buy into the self-serving secular myth of theology, progress and possession—to have faith in their own reason, goodness, and autonomy—to affirm, as the beer commercials have it, "I am." The privilege of the Christian teacher is to give students the tools to expose the values that drive our culture. Our privilege is to suggest and demonstrate that there is a beginning point other than self that is ultimately more satisfying and more meaningful—to introduce them daily to the One who says "I AM." But how do we do this?

"One of the most important things we can do is make discussions and demonstrations of the way beliefs shape "facts" and the way facts point back to the beliefs that underlie them a regular part of our teaching approach."

One of the most important things we can do is make discussions and demonstrations of the way beliefs shape "facts" and the way facts point back to the beliefs that underlie them a regular part of our teaching approach. All of life is religion; all big questions are ultimately religious ones. We need to give students opportunities to explore this notion. It takes work, but it is well worth it.

Another important thing to do is to encourage critical thinking through creative approaches to God's story. We can use our image-rich culture and the experiences our students bring with them to enhance our teaching, letting them see God the Creator-Redeemer at work in their world(s). We can help them to encounter him with their imaginations as well as with their minds. Indoctrination is simpler to accomplish and to measure, but it limits students to head knowledge and in the end, will leave them empty. A dynamic, critical, and open dialogue with and about Jesus Christ can capture their hearts and their minds.

Last, we have to live our relationship with Christ openly before our students, encouraging them to follow us. Students want to know who we are more than they want to hear what we have to say, and they are far more likely to emulate our behavior and attitudes than they are to carry out our instructions. Let them see us—not just approval or disapproval, but joy, pain, anxiety, and even fear. Let them see us wrestling with issues and ideas. They long for this kind of example, and they will respect us for giving it to them. Their thoughts of us will become an encouraging and inseparable part of their relationship with God. And they will learn to look at the world with an honest and critical eye themselves.

At the urging of my grade eight students, some of whom have seen it three or four times, my wife and I hired a sitter and journeyed to our local theater to indulge in North America's latest cinematic phenomenon: James Cameron's epic, *Titanic*. Some three and a quarter hours later, soggy popcorn and runny noses notwithstanding, we left the theater moved. But the most profound part of the experience did not occur until the following morning when I shared my impressions with my students. What followed

was an exchange of ideas that emphasized that issues of faith, reason, and knowledge are inexorably interconnected; God is at the heart of the human drama; and the powerful emotional responses we make to one another and to creation are evidence of this. The things we long for and cry over—the things we desire to know and possess—are displaced longings for intimacy with God himself.

On the surface, Cameron's attention to historical and technical detail provided us with ample discussion material—a surprising amount of which directly tied in to things in the curriculum. But as our conversation began to move beneath the surface facts, one of the film's most arresting qualities consistently emerged: its clever use of visual metaphor. Brief but powerful examples of this punctuate the final moments before *Titanic* disappears beneath the icy waters of the North Atlantic: Guggenheim calmly sipping brandy as the chaos unfolds all around him; the orchestra playing "Nearer My God to Thee" as water mounts the sides of the ship; the elderly couple lying side by side in bed as the sea rushes beneath them; the young mother who tucks her doomed children into bed with a story of a better world to come. But the most memorable of these—and the one my students remembered most clearly—was the wonderfully surreal shot of a woman floating in a foyer submerged in water. She had obviously drowned, her long hair and dress swirling about her as she is suspended powerless between the floor and ceiling. It is an image of Shakespeare's Ophelia, Hamlet's hapless lover, victimized by forces that she can neither understand nor control. These images became a kind of watershed from which flowed a discussion of what really caused the sinking of *Titanic*—and the real source of the film's unusual appeal and power. I began by asking a simple question: "What was so tragic about the sinking of *Titanic,* and what or who was responsible?"

My students blamed variously the lack of an organized emergency procedure, the unusually calm conditions, the captain for going to bed when he knew that icebergs had been sighted, Ismay for his desire to make headlines by arriving early in New York, and for his consuming interest in appearances at the expense of safety (the right number of lifeboats made the deck look "cluttered") among other things. Finally, one student suggested that the real problem was that nearly everyone on board believed that ship couldn't sink. The disaster could have been avoided if people had not so arrogantly ignored the very real limitations of human knowledge and technology.

Eventually, what had been so easily recognized (and disliked) in the snobbery of characters such as Cal, Astor, and Rose's mother slowly became associated with the ship itself. The *Titanic* became the externalization of a belief system that said reason and knowledge, technology and progress were the highest good and that ultimately they could be trusted to provide security and salvation. What had been the largest, fastest, most luxurious creation in human history became for my students, in James Cameron's own words, "that great monument to the folly of arrogant confidence"—a titanic symbol of pride. The fact that this pride had not only destroyed *Titanic,* but also the love affair between Rose and Jack only made the point more powerfully in my students' minds. As we recalled the scene where Rose releases Jack's lifeless hand and slips silently into the darkness, we relived the film, but this time we were moved because we saw clearly the brokenness that sin brings to the world. We were like Jesus standing at the tomb of Lazarus, his friend, weeping for a world that had turned its back on God. Rose's final words to Jack, "I'll never let go, Jack, I'll never let go," carried with them the new significance that despite her love for him, and despite her relative goodness, she was powerless to counteract the effects of sin on the one she loved. The best she could do was to resurrect him in her memory. Of course, the ironic subtext of Rose's promise to Jack is found in God's promise to the faithful: "Do not be afraid . . . for the Lord your God . . . will never leave you nor forsake you" (Deut. 31:6).

By this point in our discussion, the montage of data, visual effects and historical narrative that composed such an exciting piece of entertainment had become something more: a window through which we had caught a glimpse of both the human condition and the sovereign God who calls us to trust in him. It was a profound moment.

A former student once told me that because of me he could no longer watch a movie or read a book or even see a commercial without examining its message and the values it contains. He remarked rather indignantly that I had changed forever the way he looked at the products of our culture. Unbeknownst to him, it was probably the greatest professional compliment I have ever received. Perhaps it indicates that the real art of Christian teaching is finding and crossing the bridges between knowledge and imagination. It is demonstrating that faith in God does not happen in the absence of reason but rather in close cooperation with it. It is communicating that a head and heart commitment to Jesus Christ, like a great painting, poem, or film is something to be celebrated, treasured, and shared with others. And it is encouraging your students to hold, even for the smallest instant, the crazy notion that the Creator of the universe himself is at work in the everyday details of their own lives. As Christian teachers, we are at our best when we do this well.

In the end, our students *will* respond to their worlds in faith. But what kind of faith will it be? May all our teaching reveal Truth. ■

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Constructivism in Science and Math: Is It Christian?

by Jim Jadrich

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A construction project has begun just outside my office window. A new wing is being added to our science building. The new structure will not be an entirely independent building, but rather an extension which must join smoothly onto the pre-existing building. Consequently, as the construction proceeds, modifications need to be made to portions of the old building so that the new wing may connect onto it properly.

The master architect has drawn up blueprints for the project, but it is the construction workers who must follow these plans in order to create the new building. And although the architect may be on hand to oversee some of the work, he will never lift a hammer to help in the actual construction. The new structure will be built entirely by the construction workers.

In the science classroom just below my office, another kind of construction project is in progress. Pre-service teachers are extending their scientific understanding of gases and pressure. While this construction project is less tangible than the one going on outside, it is just as real. The students arrived at class with pre-existing ideas and beliefs about gases and pressure. Unfortunately, many of the these ideas are not correct, and the students are having to modify their current ideas before they can build onto them. The instructor (the master architect) has carefully designed the day's lesson so that the pre-existing beliefs of the students are taken into account. As the lesson proceeds, the instructor can not "lift a hammer" to build new understanding within the students. These concepts can only be constructed by the students themselves. It remains to be seen how accurately the student's new understanding will resemble that which exists in the mind of the instructor.

Background

When science educators and researchers began to notice similarities between the way one builds a building and the way one learns a new concept, the word "constructivism" was coined. Used in this way, constructivism was meant to represent the process at work in a learner's mind as new information is connected and built onto ideas and beliefs already present within the individual. Therefore, within the context of science and math education, constructivism was a model for learning.

However, it was not long before the meaning of constructivism in science and math education acquired broader connotations. It became clear that if understanding and knowledge are constructed by the individual, then no two people will ever construct exactly the same understanding about anything. There will always be a personal slant or bias to what we know and understand. Pushing this line of reasoning even further, some people have asserted that since all of our knowledge is at least partly subjective, then there can be no absolute truth at all. In this context, constructivism becomes more than a model for learning. It becomes a philosophy of knowledge and reality. It is a philosophy which asserts that there are no absolute truths or reality, only constructed truths and realities. (This newer interpretation of constructivism in science and math education closely parallels the meaning attributed to it in the area of literary criticism.)

The evolution in the meaning of constructivism in science and math education has caused great concern among Christian educators. A quick perusal of the science (and to a lesser extent math) curricula available today shows that a majority of it is purportedly written from a constructivist perspective. But what is meant by such an assertion? Do the authors simply mean that they have developed a curriculum which fosters the acquisition of knowledge and understanding by students, or do they also mean that the curriculum is based on the premise that there are no absolute truths? Clearly a curriculum developed from a worldview which denies the existence of absolute truth can never be compatible with Christian education. And surely the Christian educator needs to know the intent of her curriculum before proceeding with it. What steps, therefore, should the educator take to insure that her science and math materials are not in opposition to genuine Christian education?

For starters, it is important to realize that imperfect knowledge and subjective understanding do not necessarily eliminate the possibility of absolute truth and reality. Our understanding may be incomplete or flawed, but what is true and real need not be. There is nothing inherent in the process of constructing knowledge that can cause independent truth to become relative. It is like the blind men who encountered the different parts of an ele-

phant. Their conclusions about the characteristics of an elephant were biased and incomplete, but that did not stop the elephant from still being an elephant! In the same way, God and truth still exist even if we "see through a glass darkly." So as a learning model, constructivism is not anti-Christian.

In actuality, constructivism as a learning model fits quite comfortably within a Christian worldview. Here we conceive of imperfect people constructing imperfect knowledge about the real world. Our imperfections in understanding do not impose a limitation on God or on his creation. It is our fallenness which holds us back from fully comprehending truth. Truth itself is not suspect.

So, how much of the constructivist philosophy denying absolute truth and reality has been imbedded into the science and math curriculum available today? The answer, of course, is that it varies. Fortunately, there is no need to throw out the baby with the bath water when it comes to curriculum. A simple reading of the material will usually alert the user of any attempts at indoctrination into a non-Christian worldview. Radical constructivist viewpoints usually occur within philosophical overviews given by authors, and they hardly ever occur within the subject content itself. (A noteworthy exception to this general rule can occur in material coming under the heading of "Science, Technology, and Society." Here the content itself must be carefully reviewed.)

Despite the possible pitfalls mentioned previously, there is much within the constructivist model for learning which can be warmly embraced by Christian educators. As a learning model it is predicated on the belief that the brain, although wonderfully made, is fallible. This sober pronouncement on the fallenness of humanity stands in sharp contrast to some of the more triumphalistic philosophies of humanity which can sometimes be found in education. Constructivism has also caused educators to rethink the traditional teacher/student relationship. When one recognizes that students construct understanding based on their current knowledge, then one must also recognize that the student, and not the teacher, must be at the center of the educational process. The Christian teacher with a servant attitude warmly embraces this relationship.

Conclusions

When the construction outside my office is finished, I expect to find a good and serviceable, but not perfect addition to the science building. I will appreciate the necessity of having had architects involved in the project, but the fundamental construction will have been done by the construction workers themselves. The same is true of the learning taking place below my feet. The teacher is integral to that process, but it is the students themselves who will have constructed the understanding. The understanding will not be perfect, but it will reflect our humanness. ■

Query

Marlene Dorhout

Marlene Dorhout teaches at Denver Christian Middle School in Denver, Colorado.

I am sitting here again making out report cards and wondering if I can possibly be fair to the students and the parents by my comments and grades. I'm tired of trying different kinds of report cards that never satisfy all the parties involved. Is there a perfect one out there anywhere?

According to Education World (Internet), the 1990s have been a decade of controversy in the area of report card reform: "Parents and teachers have increasingly clashed over the best way of reporting student progress." Obviously your concern is shared by many.

I doubt the perfect report card exists, and much time is often wasted discussing and revising. Computer programs and printouts usually end up replacing whatever card evolved from the committee efforts, anyway.

Parents want and deserve to know how their sons and daughters are doing in school. Grades do not tell the whole story, but students, teachers, and parents can fill in the gaps. I recommend involving students in the reporting process. They can quite accurately reflect on their learning and share responsibly with their parents. In turn, parents tend to respect the students' evaluation and comments when the teacher has given license for this more personal approach. Teachers, too, discover pieces to the puzzle they didn't have previously. Such a joint effort creates a more realistic picture and is a learning experience for all parties involved.

The computer has become a great source of information. My students love working on it and develop programs of their own. At this point I know they still need me for guidance and application of knowledge. Even though most teachers don't think computers will ever replace teachers, I'm not sure that couldn't happen. How do we, as educators, prepare for that possibility?

I do not believe we need to prepare for that possibility if we adequately prepare to meet the demands of educating in a rapidly changing society. Openness to innovative ideas will keep us in the business longer than resistance. Operating technology does not guarantee organized, thoughtful response. Guidance and application are two important elements of teaching that are necessary regardless of the avenues of learning.

Other advances may soon outdate the computer as we know it, but our readiness to accept the changes and validate the learning demonstrates professionalism. Even before the widespread use of school computers, the teacher shifted roles from being predominantly a lecturer to more of a facilitator. With such adaptable skills, the educator will be a long-time necessity. ■

BIG Buddies Little Buddies

by Marianne Klein

Marianne Klein is a second grade teacher at Abbotsford Christian School, Heritage Campus in Abbotsford, British Columbia.

The concept of a buddy program has been with us for a number of years, especially at the elementary level. However, the scope of a program does not need to be limited to this level. It is definitely more than just putting a couple of kids together. So, let's revisit buddies, or if you've never tried it, step outside your usual routine, and reap the rewards of a well-planned program.

A buddy program is a beautiful way to foster a cooperative, caring, and sharing community of learners that reaches beyond the classroom. The goal is to create shared experiences that support risk-taking and meaningful learning. Learners of different ages are partnered to share experiences and meet on a regular basis. A successful experience depends on the commitment of teachers and students.

First, it's important to have teachers who can work together, and students whose age difference is distinct enough so that one can become the big buddy, the other the little buddy. Generally, an age difference of at least two years is recommended. Second, buddy time should be scheduled into the class timetable so that the children see each other regularly, weekly or bi-weekly.

Although a program can be started at any time of the year, September is a good month to get to know your students and identify any special needs to be considered when you match students. It is also the time to prepare the buddies by outlining the program and expectations for behavior.

In October, schedule simple activities in which students can experience success. This is the time to create a pleasant climate and relationship. An initial session of twenty minutes is sufficient. Later, sessions might vary from twenty to forty minutes.

Suggested starter activities:

- Make individual drawings of each other.
- Work on cooperative drawings.
- Interview each other to find out likes and dislikes, to get to know each other, to identify favorite foods, colors, books, sports, pets, or TV shows.

Role play illustrating I Corinthians 13 at a chapel

Making bag puppets

Large picutres (18" x 24") created with felt pens and crayon.

Posters illustrating the story, "Bub."

Skating with buddies is fun

Activities to expand learning:

- Share reading.
- Retell a short section of fiction or non-fiction.
- View a film together to find information and record facts or opinions.
- Work at computers with games, drills, or story writing.
- Converse in French (or another foreign language).
- Write a combined story.
- Prepare a chapel or assembly to be shared with the school.
- Present a drama.
- Conduct a sports day for buddies with noncompetitive fun events.
- Observe and record on a checklist what a little buddy is able to do during physical education class.
- Celebrate special occasions with snacks that can be easily prepared.
- Take slides of some buddy activities and ask students to write and record the commentary.
- Big buddies write books for their little partners to enjoy.
- Big buddies edit and type their little buddies' stories on the computer.
- Create Big Books together.

As teachers work together in a buddy program, they observe different management techniques, learn more about students' developmental stages, and gain a greater appreciation and respect for each other. Therefore a buddy program is as much a powerful educational experience for teachers as for students. ■

DOUBLESHOVEL

DOUBLESHOVEL

by W. Dale Brown

W. Dale Brown teaches in the English department at Calvin College in Grand Rapids, Michigan.

Do all teachers, even the old hands, still get those teacher nightmares during the week before the new semester? It never gets easier for me—those new faces, that starting over feeling, my sweaty palms. So I've taken to parables. Is there a way to metaphor them into the course of study I am proposing? So this semester I said hello, handed the students syllabi, and told them this story.

When I was ten or so, my father grew weary of "back when I was a kid" homilies and decided to offer me a practicum. At my age, it seems, he had plowed behind mules named Sam and George. So I found myself one remarkable Saturday morning rubbing sleep from my eyes to survey the lower forty running brown and green down from my grandfather's barn. It was early spring; we'd driven in the night before for a short vacation at the homeplace. The sun, just emerging over the many-greened Tennessee hillside, had not yet touched the dew that lay heavy around us, the birds still made their morning sounds, and vague bumping sounds and smells from the barn and house gave evidence of the day beginning behind me. A creek meandered along at the foot of the hill, separating off the once-again-to-be-corn field, my responsibility for the morning.

Not a particularly reflective child, I nonetheless must have noticed something noteworthy in the before-we-begin moment. Old Mule was my mule's name though it made little difference to me and none to him. I could smell the ancient leather of the reins that I feebly snapped. "Get up there" was not in his lexicon, but we got up anyway. The winter-rested field soon resembled the doodles of a giant hand. The birds had given way to my father's thigh-slapping laughter. I couldn't hear the creek anymore in my concentration on the rough, doubleshovel plow and the wayward beast. The reins were heavy on my shoulders. My uncle would clean up the mess later with John Deere.

Lesson learned, I guess. My dad sure enough had a rough childhood. But it is the morning moment before the plowing that I still recall these decades later, the moment before "Get up there" that has become the lasting center of the story. The rabbis have a more sophisticated version. "The beginning of words," they say, "is the beginning of unavoidable transgression." We break the silence and the sod at great risk, begin any task with the inevitable sense of our limitation, with sure-to-go-wrong-somewhere vibrations. Harvey Oxenhorn says it this way: "Harmony, like a following wind at sea, is always the exception."

But we still begin. And we still get those moments before we make our messes, moments when the world seems poised on a shimmering rightness. Thus reminded of what might yet be, we can handle a crooked furrow in a brown and green field.

See you next time. ■

Pears and Praise:
Devotions in Mr. Klein's Room

by Linda Ruiter

Linda Ruiter is a teacher's assistant at the Edmonton Christian Schools, Northeast Campus in Edmonton, Alberta.

"You only had a pear for breakfast?" Mr. Kleine asks incredulously. The student shrugs, slides a little lower in her desk and smiles sheepishly. "Well, um, I got up late and..."

It's 8:35 and grade six devotions have begun.

Devotions? About pears? Well, not exactly. You know the doodle art game–one person draws a quick scribble and another crafts it into a picture? Mr. Kleine's devotions are something like that. Only, for devotions the "doodle" is an idea, an experience, something that a student unwittingly provides as a jumping off point. Today, that jump off point is someone's breakfast.

A pear for breakfast evolves into a mini health lecture on the growing bodies of 10 and 11 year-olds and how eating, like other ways we care for our bodies, requires thoughtfulness. "Caring for your bodies by getting proper food, rest, exercise, etc. shouldn't happen by accident," admonishes the teacher. "It needs to happen by design!"

Okay. Pears, growing bodies. Where are we going with this? Mr. Kleine looks thoughtful. Does he have a design?

"What about other human needs?" probes the teacher. "We've been noticing, in social studies and in our novel study, the different kinds of needs that people have. What other needs, besides your physical needs, should you be taking care of?"

"Intellectual, yeah. Psychological, emotional, okay. What's missing? Spiritual growth! We need to take really good care of that too, don't we? Well, how do we do that? How do we feed this really important need?"

Mr. Kleine pauses. Silence. Finally, one student volunteers, "Prayer?"

"Yup," nods the teacher. "For sure. Well then," he challenges, "and when and what do you pray?"

Examples of mealtime and bedtime prayers are tossed about but Mr. Kleine wants to direct his students' thoughts deeper. He suggests that we ask ourselves why we pray. Discussion revolves around praying out of a need to talk to and to praise the Creator.

"Yeah! Okay! Now, I want you to think about how you do that. When we give thanks at the table or during devotions we use words. And that's important. We need to pray and give thanks with words. But, 'Lord bless this food for Jesus' sake amen' isn't enough, is it? You know, Jesus says, 'even the very rocks cry out.' In other words, even rocks praise God." He begins to point at different objects in the room–a desk, a ruler, a bookcase–and asks the students to consider how these things might praise God.

The boys and girls look a little stumped and are not quite sure how they got all the way from a pear for breakfast to a bookcase praising God. Mr. Kleine, however, is smiling. The bigger picture is nicely taking shape. Just a few more finishing strokes...

"Being. Being what is supposed to be, that's how. Being the best that it can be. More importantly, you and I can praise God this way too. We praise God by being all that God intended us to be. By doing our best to live and work and play in a way that shows the Creator that we truly care about the earth, each other, and our own bodies."

The teacher reminds his students that they have been visiting the theme of being caretakers of the earth in science, of caring for their bodies and being helpmates to each other in health. Then he points out how they have been revisiting all these themes in Bible class while wondering about what it means to be made in God's image. Education, he tells them, actually means "being set free." "You and I, here in this classroom, are 'being set free' to uncover all kinds of neat things," he continues. "We are learning how to be who God means us to be, not what society or other structures sometimes try to manipulate us into being. By being who God wants us to be, we praise God."

Thoughtfulness shows on students' attentive faces. The morning devotions began with a response to one person's complaint of hunger and subsequent confession to having only a pear for breakfast. Patiently, skillfully, the teacher drew in linking ideas from preceding weeks of living and learning in the grade six classroom. New thoughts merge with old ones and consolidate to form a new whole.

Finished, Mr. Kleine sits back and stares a moment at the ceiling. "By being who God wants us to be, we praise God" he repeats softly. "Yeah. Cool!" ■

Difficult Questions

by Judy Henson

Judy Henson teaches English at Byron Center Christian Middle School in Byron Center, Michigan.

The students filed out of class solemn and silent. We had just concluded the discussion of a rather difficult question and had found no easy answer. Some lessons end that way. Whether the subject is science or social studies, art, or Bible, some lessons pose difficult ethical or moral questions.

With my English class, we had read Ray Bradbury's short story "The Flying Machine," and I had asked the students: Was the emperor justified in killing the flier? The assignment was for students to state their opinions and why they believed the way they did. After getting some thoughts down on paper, like-minded students were allowed to get into groups, share ideas, strengthen arguments, and reinforce each other's thinking. These activities progressed smoothly, and it wasn't until the two sides began debating the issues that difficulties arose. Actively engaged in discussion, the students soon realized that the story about the emperor and the flier was really a story about whether the problems and damage resulting from technological advancement outweighed the benefits. Each side was able to pose questions that had no easy answers. While some students became more sure of their opinions as the debate progressed, others became uneasy and began to question their original position on an issue that was becoming increasingly difficult and complex. Being early in the term, as class ended after a second day of discussion, some students were expecting me to resolve their difficulties by giving them the "right" answer. Other students had already realized that regardless of what I might say, there was no "right" answer and certainly no easy answer. They left the classroom quietly without their usual seventh-grade exuberance and noise.

At my school, one of the main objectives of the reading curriculum is for students to develop critical-thinking skills. This requires that students evaluate what they read, relate it to what they already know, and then form some conclusion or judgment based on facts. It requires that they test their acquired values and beliefs and assumptions about themselves and the world in which they are living. Most specifically, it requires that students question, thoughtfully and critically question. And therein lies the problem.

On the surface it seems so easy and obvious. Of course, we do not want students to believe and accept everything they read and hear. Of course, we want them to think critically about issues and be able to defend what they believe. Students, especially middle school students, often respond to the question, "Why do you believe that?" by saying, "I just do." Such students are clearly not equipped to articulate any basis or rationale for the conclusion they make. For Christian school students who are growing up in a culture with values and beliefs so contrary to biblical values and teachings, critical-thinking skills are of crucial importance. The constant exposure of our students to the mixed messages of media necessitates that teaching critical-thinking is of primary importance.

In spite of this, there still exists some strong resistance to such teaching, primarily, I believe, because it requires a questioning spirit in the student. Middle school students often resent having to generate questions; they simply want to "give teacher the answer." And when they engage in sincere and difficult discussions about their beliefs, as they did with the Ray Bradbury story, they sometimes become less sure of themselves and their opinions. They are forced to step out of their comfort zone and into their "discomfort" zone, which explains why they left the class in silence. What had seemed to be a simple and easy question to take position on had become something far more difficult and complex. Their easy answers had been cast to the wind. There was no simple resolution.

Additional resistance to the teaching of critical-thinking skills comes from other sources. I cannot forget a discussion I had with a class after a very slick and high energy chapel presentation. When we talked about the message and the style of presentation, some real contradictions emerged and the chapel lost much of its initial luster. A parent/administrator cautioned me the next day that by encouraging students to question I would be encouraging cynicism. Often teachers, pastors, and parents take much pride when kids are thoughtfully able to criticize the music, movies, books, and TV shows to which they are exposed. But when some of these same critical-thinking skills are applied to chapels or church services or to classroom procedures or established dogmas, we become uneasy. What if our beliefs and practices don't hold up under the scrutiny of some students and they come to conclusions that are unacceptable to us? Then critical-thinking skills become a threat.

So, do we change our curriculum objective? Re-write it? Or accept the inherent tension it creates? Do we want to encourage students to passively nod assent to everything they read and hear? Do we want them to respond to difficult issues with the very popular "whatever"? Or do we want them to have the ability to thoughtfully evaluate, question, and examine thoughts and ideas?

The choice is not very difficult. ■

Independent Women's Literature

by Stephen Ulstein
&
Julianna Skaff

Stefan Ulstein teaches media and English courses at Bellevue Christian Junior High School and High School in Bellevue, Washington.

After reading Sadker and Sadker's *Failing at Fairness: How American Schools Cheat Girls,* I was struck by how easy it is to set up a world in which things male become the universal standard. Young women became passive and distant, expecting boys to take the lead. The hidden curriculum message is that girls' thoughts and aspirations are less important than the boys'. When I later read *Reviving Ophelia*, I was further convicted to think about the books I teach. Sure enough, they are mostly by men. Of course, that's not completely my fault. I had mainly been taught male authors in college, as had my professors. In years past it was difficult for a woman to get published, let alone re-printed and studied. Women even changed their names (George Sand, George Elliot) or used just their first initials to better their chances at getting their work in print.

Compounding the problems is the fact that most girls will read books by and about boys, but boys resist reading about girls. It's the same with movies. Girls are expected to go to macho adventures, but guys don't want to be caught watching a chick flick. Girls' self-esteem is generally higher than boys' in the early grades, but it begins to plummet around adolescence and continues to drop as the girls get older. Many bright girls begin to act dumb, lest the boys reject them. Girls are more prone to depression than boys. Part of this problem may be that their world is less represented in the curriculum. History is about big boys with guns. Literature is about boys killing whales or floating down the Mississippi on cool rafts. They don't see themselves and their aspirations reflected as worthy.

I had taught Julianna Skaff for two years and knew her to be an exceptionally thoughtful and mature young woman. She was an avid reader, and she often told me about books that she was reading outside of class. So, when she asked my advice about which senior English class to take, I suggested that we make one up just for her. She would read books by women and then compile an annotated bibliography, with an eye toward which books might be integrated successfully into the regular English curriculum.

As any English teacher knows, it's hard to assign one book to 100 students. The students are all at different reading levels, and their interests vary widely. Studies show that enjoyment of reading peaks in the early grades and goes down every year the child stays in school. Part of that may be due to our assigning books too early, or without asking whether the books truly speak to the students' lives, then explicating the life out of them in a vain attempt to make our seemingly dim-witted charges appreciate the finer things in life. Then, to drive the last nail in the reading coffin, we demand that our students examine, from a Christian perspective, these books which they have not fully read.

With her wide-open mandate, Julianna took off like a thoroughbred from the starting gate. She devoured books, essays, and short stories. We discussed the books that I had read, and she told me about the ones I had not read. Now I have her annotated bibliography, and I'll experiment with the titles that she thinks will work at various grade levels. This class was a lot of fun for me. I got to guide a bright, motivated student as she grew in her understanding, and she helped me to begin addressing gender imbalance in our curriculum. Ultimately, our English program and future students will benefit from her work as well.

For a free copy of Julianna Skaff's annotated bibliography of books by women, please e-mail Stefan Ulstein at ulstein@juno.com, fax him at 425-454-4418, or write to him care of Bellevue Christian High School, 1601 98 NE, Clyde Hill, WA 98004.

The Style Dance

Ron Sjoerdsma teaches in the education department at Calvin College in Grand Rapids, Michigan.

The dusky fall afternoon settled in as Kate Wells graded her eighth graders' latest writing assignment, a persuasion essay. The students' files were neatly arranged on her computer screen like solitaire cards. One stack, the longest one, represented papers for which Kate had decided to ask for a rewrite without much more in the feedback column than, "You can do better." She had not begun a scoring rubric for any in this stack. Once she realized her patterned response, she clicked the first paper in the list and started again.

Cheryl's paper was a classic example of what plagued most of the others—the students simply had not put together any kind support for their original opinions. But what particularly frustrated Kate was their preoccupation for what they called "style." "Style" meant creating papers that looked great, at least in their eyes, often including graphics mined from the Internet. Because they knew that the first drafts would be read onscreen, many used colored, illegible fonts. In Cheryl's case, she had included a picture that she had either scanned from an American Dance Festival brochure or downloaded from ADF's Internet site. She was evidently trying to make the case that dance was an important part of American art and, as such, should be included in the Hillendale Christian Middle School art curriculum. But there was no apparent reflection or investigation and certainly no logic to her argument.

Kate deleted her original "you can do better" remark from the comment margin, sighed, and began a more detailed explanation of what she expected from this assignment. Was it too much to ask for a little thinking from thirteen-year-olds?

The writing lab session the day before had again indicated what the rest of the eighth grade teaching team was beginning to complain about—her students loved to be engaged in each other's writing and other computer projects. But most of the suggestions had to do with improving the look, the style. The most common words during writing lab time seemed to be "That's so cool!"–a phrase strongly connected to Kate's past vocabulary. Language cycles were interesting.

Sara Voskamp, the eighth grade team's young but increasingly respected science teacher, stuck her head into Kate's room, "Were we going to get dinner together tonight, or was that next week?"

"Tonight will be great; Mike and Nathan are stopping with the team after Nate's game, so I'm free." Kate had forgotten but recovered quickly. "How about 6:30? That'll give me time to finish a few of these frustrating essays. Unless you have a date tonight—I can always pick something up."

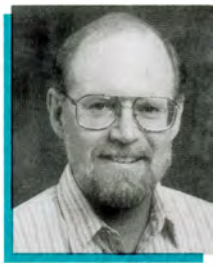
"No, no date." Sara moved over to Kate's computer and quickly changed what had become an annoyingly regular subject. "So how's this rubric working?" Ever since Sara had gotten the scoring rubric idea from Kate the previous year, she had pumped Kate regularly for practical advice.

"The rubric's not the problem. Well, maybe it's part of the problem. I guess I just expected too much. And I think sometimes that computers are part of the trouble, not the solution."

Sara smiled sarcastically. "It's not possible; is this coming from Kate Wells, the gung-ho techno-wiz who pushed me into multimedia projects two years ago?"

"Shocking, isn't it. I think I've lost control of my lab time—and in just one short year. Last year's class usually settled into pre-writing and first drafts without much more than a few guidelines for how to get started. And they proved the research that says kids will stay with a piece longer and develop it more when they use computers. But these eighth graders are all about style."

"You'll get no argument from me on that one. My first multimedia assignment was a disaster—I think I told you that before. And Mrs. Peters stopped in to observe, too. I wanted to scream. I invested so much time in getting together what I thought was a great exploratory, and all they wanted to do was



Ron Sjoerdsma

cut and paste electronic pictures and ooh and ah over their pretty screens. You know, 'you be stylin'! "

"I've heard that one too. I'm thinking this could drive inquiry-based instruction right out of me. It was so much easier in the old days—listen to me, 'the old days'—when I just laid out the writing formula." Kate's comment was directed at what Sara perceived to be her strength area.

"Well, you know that's not where I'm headed. Helene—funny, how odd it still seems to call Mrs. Peters by her first name—Helene suggested that I might need to clarify my expectations for computer lab behavior. She thought it might be good to create—what did she call them?—lab dyads or triads and then only have students give feedback across those groups. And she also wondered, since I use an electronic scoring rubric like you do, whether I would be willing to let these small groups have the first crack at giving each other feedback using the scoring guidelines."

"Might work. But it'll definitely slow down the process. And I already don't have enough lab time as it is. Which reminds me, Jim mentioned this morning that the tech committee has a new plan that would do away with the lab and spread computers out around the school. That way we'd all have mini-labs in our rooms. What d'ya think?"

"Great," Sara responded without enthusiasm. "That's just what we need, and probably I'll get no tech support for what's in my room?"

"Hadn't thought of that. But I think we are all getting pretty independent with the lab these days."

"That's just the point. Why mess with what's working. I'm not saying we can't do this if there's a good pedagogical reason, but it could be another 'style' thing. I've been reading that the mini-lab is the latest rage." Sara realized she was taking the conservative role again.

"And, of course, we don't want to get caught up in the style dance."

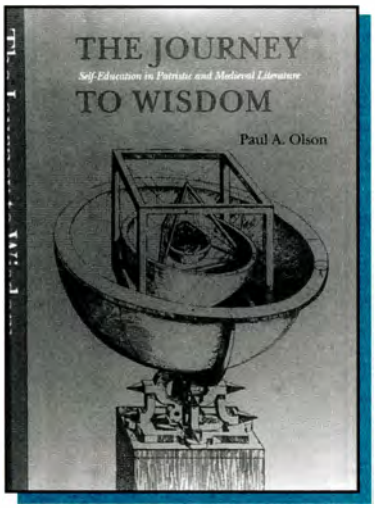
Sara couldn't tell if Kate was serious but let it pass. "I'll let you get back to work. You want me to pick you up?"

"Yeah, 6:30's fine with me. Here at school—I walked in this morning. That'll give me a few hours to dance with these essays." As Kate turned back to Cheryl's paper and its dance photo, she thought about how often teaching was a lot like dance, but every day the choreography seemed to change. ■

The Journey to Wisdom: Self-Education in Patristic and Medieval Literature.

Paul A. Olson. Lincoln, Nebraska: University of Nebraska Press. 215 pp. Plus 81 pages of notes and index. 1955.

Reviewed by Steve J. Van Der Weele, professor emeritus of English at Calvin College in Grand Rapids, Michigan.



It is difficult for us modernists to avoid the fallacy of presentism—the notion that the past is past, the present is all that matters. Milton's Satan expressed that error well: since he could not remember any time before himself, time must have begun with him. It is, in fact, a humbling experience to walk through an art gallery or a science museum or a library and reflect not only that we stand on the shoulders of our forebears but that some of this work has never been surpassed.

Paul Olson, author of *Journey to Wisdom*, has been kind enough to dust off the writings of several ancient and several medieval writers about education. A medievalist, he tactfully suggests that these earlier writers might cast some light on the pressing problems in contemporary education. And so they do. Even allowing for the contrasts in societal structures, some deep wisdom comes across the centuries that can serve as a beacon to our beleaguered schools. He also addresses two related issues that have concerned him in his academic work.

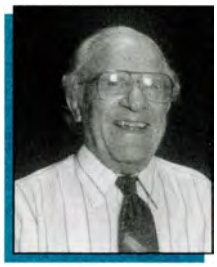
Olson analyzes selected works and passages from people who wrote, among other things, about education. The sophists serve as a continuing point of reference and contrast—the pseudo -teachers who taught students the tricks of the trade, presented no ideals beyond civic virtue, and regarded language not as a vehicle for conveying truth but as an instrument for manipulation and exercising power. The classicists Plato and Aristotle, and the medieval Gregory, Origen, Augustine, Boethius, Aelred, Dante, and Petrarch are the leading writers Olson considers. Later Platonists and the scientists Galileo, Copernicus, and Kepler are treated in a final chapter.

Though with varying nuances, these writers held three beliefs in common: (1) The world is objectively real, and language does not create but describes that reality. (2) Knowledge begins with an examination of the physical world and moves up, by levels of ascent, ultimately to a contemplation of the Logos—a celebration of the light that lightens every person that comes into the world (John 1:4) (even Plato adumbrates such an intuition). (3) Education does not take place in a vacuum but in the context of human suffering. (4) A student needs to "empty himself," to divest himself of merely personal notions of the cosmos and entertain, instead, the imaginative visions bequeathed to him by the inherited tradition. (5) Education is not merely the acquisition of marketable skills or submission to the reigning ideas, as the sophists had it, but it is nothing less than a journey to wisdom. And it is Olson's contention that only such an education can keep students from being tempted to fit comfortably into a consumer-oriented, rootless, unreflective world whose chief aims are pleasure and the good things of life. Working without a clear sense of origins or a teleology, emphasizing process rather than the pursuit of solid archetypes and paradigms with which to stock the mind, shaping education by adapting to cultural trends, educationists all too frequently fail in their obligation to instruct students in the pursuit of Wisdom (cf. Proverbs 8), which, as Boethius said, "mightily and sweetly orders all things."

The author also challenges two academic groups. The first is the post-structuralists, Derrida and others, who claim that in their deconstructionist exercises they are doing nothing different from what other critics of the status quo have done—Socrates, for example—when they challenged reigning orthodoxies. But Olson bars the door to their membership in the Socratic Club. These earlier opponents of the established order carried on their work in the name of Truth. And an objective, clearly stated body of truth is precisely what these modernists deny. The difference can hardly be over-stated.

Olson also contends with that group which, in a search for

Book Reviews



Steve Van Der Weele

scapegoats, accuses Christianity, on the basis of the Genesis injunction to subdue the earth, for licensing the pillaging and polluting of our environment. Olson again soldiers for correctness here. He simply reports that not anywhere in his reading of these authors has he found anything but a reverence for the creation and the Creator. One doesn't have to consult Indians or Eastern religions to discover respect for the natural world. The agenda that did call for radical transformation, for the subjugation of nature rather than peaceful co-existence with it, was launched by Francis Bacon and "the arrogance of humanism." That program is now institutionalized in our educational structures.

Despite the range of concerns Olson treats, the book is unified by the over-riding theme of the chief end of education—the quest for Wisdom. The book is an exciting and thorough re-statement of the adage that what matters above all in education is one's definition of man; the rest is detail. This is the type of book that brings a teacher up short; it challenges one to reflect on his or her goals in the classroom and whether the strategies are actually leading to these goals. Put it on your list for this year's reading.

Inspiring Teaching: Carnegie Professors of the Year Speak.

John K. Roth, General Editor, and others. Boston: Anker Publishing Co., 1997. 232 pp. $37.30 (hard cover).

Reviewed by Mark I. Ackerson, Liberty Christian School, Denton, Texas.

Who can better inspire teachers to increase their pedagogical effectiveness than teachers already acknowledged as master teachers? Twenty professors from across the country have compiled their teaching strategies and pedagogical insights for this publication. The Council for the Advancement and Support of Education (CASE) and the Carnegie Foundation for the Advancement of Teaching as a National Professor of the Year initiated the project and chose the contributors. The book is grouped into four sections: Teaching Characteristics, Teaching Practices, Teaching Philosophies, and Teaching Teachers: Two Postscripts. The contributors represent diverse fields: English, History, Religion, Medical Humanities, Rehabilitative Medicine, Philosophy, Biology, Management, Reading, and Nursing.

The essays in Part One respond to the question, "What are the characteristics of a good teacher?" Many of them, of course, are highly personal, others are relational, and still others are emotion-centered. All characteristics are intrinsic to the individual. They are worn continually, not intermittently. They cannot be put on or taken off like a coat when one enters or leaves the classroom. The essays address the important issues of classroom atmosphere and management, of the right balance between freedom and authority in the classroom, of ways to develop mutual trust and respect, and of strategies to lure students to do work beyond the text and the lecture. The writers supply abundant examples of how they implement these goals.

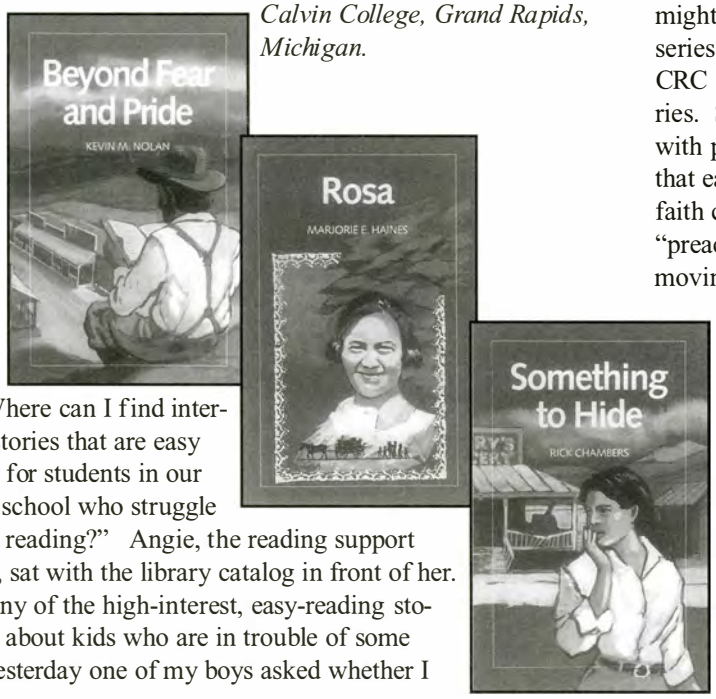
In Part Two, Teaching Practices, the contributors demonstrate how a variety of teaching practices and experiments have fared in the classroom. Many of these involve imagination, creativity, and a willingness to take risks. All require an investment of the teacher's life in the lives of the students. The essays also challenge teachers to achieve technological competence to more nearly approximate a global classroom. They also recommend that teachers develop a personal portfolio to facilitate evaluation of their own teaching practices—both successes and failures—with an eye toward continual improvement.

Part Three, Teaching Philosophies, furnishes guidance for questioning assumptions about teaching that all too often go unchallenged. Other contributors urge teachers to see the classroom as part of the community. Still others offer ways to examine and reaffirm the value of a liberal arts education. Several offer advice on how our own perspectives—such as feminism—may be influencing our teaching. This part concludes with a moving contribution by the general editor, who sets forth how his studies of the holocaust have helped shape his philosophy of teaching. To summarize, this section deals with issues indicating how education and teaching can prepare both students and teachers to become responsible, effective, and discerning citizens—not just of our own neighborhoods or country, but also of the world.

In Part Four, the postscripts, the organizers of the book challenge teachers to appropriate the wisdom and insight about teaching that the writers have conveyed in this collection of essays. They remind us that, of course, this process requires discernment, for no teacher can become a clone of another teacher. We are each unique; each of us has different gifts and abilities. But every teacher who is eager to improve will be able to glean ideas and develop attitudes in ways that will work for him or her. Used in this way, the book is a valuable, insightful, and challenging resource for all good teachers who wish to become even better teachers.

Living Stories. Part of the Open Door Book series. Grand Rapids, MI: CRC Publications. Cost is $3.95 (US) and $5.35 (Canada).

Reviewed by Gloria Goris Stronks. Professor of Education, Calvin College, Grand Rapids, Michigan.



"Where can I find interesting stories that are easy enough for students in our middle school who struggle so with reading?" Angie, the reading support teacher, sat with the library catalog in front of her. "So many of the high-interest, easy-reading stories are about kids who are in trouble of some sort. Yesterday one of my boys asked whether I thought all kids who can't read well get into trouble. It would be nice to have reading material for them about ordinary people who solve problems in a good way."

I thought about teachers like Angie when I came across some reading material in a place where middle school teachers might not think to look. The stories are part of a "Life Stories" series in the *Open Door Books* category and are published by CRC Publications. These inexpensive books are all true-life stories. Some are contemporary and some historical, but all deal with people facing new or difficult situations. In spite of the fact that each story focuses on Scripture truths and demonstrates how faith can carry people through difficult times, the stories are not "preachy." I liked them all, but the one that I found especially moving was *Beyond Fear and Pride*, in which the author and illustrator, Kevin Nolan, tells his own story about dropping out of high school and having to learn to read as an adult.

The books were intended for adult new readers and those learning English as a second language, but they could be read and understood by any student able to read at least at a third or fourth-grade level. There are fifteen books in the series; each has about 35 pages. Several titles are available in audiocassette, a resource which could be used to help students gain oral-reading fluency. Complete descriptions are available by calling 1-800-333-8300 (US) or 1-800-263-4252 (Canada). ■