In Memoriam: Malcolm S. Knowles .........................2
By John Henschke

NUMERACY

Up Front:
Numeracy Education: More Than Mathematics .................12
By Lynda Ginsburg, Guest Editor

Numeracy: Becoming Literate With Numbers ..................13
By Idko Gal and Ashley Stoult

Calculators in the ABE/GED Classroom: Gift or Curse? ......16
By Myrna Mainly

Becoming a Teacher of Adult Numeracy .......................18
By Lynne Mikulis

Using Internet-Based Resources in Math Instruction ...........20
By Susan K. Cowles

FEATURES

The Making of a Skillful Administrator .......................22
By Michael W. Galbraith

Assistance Programs: A Timely Solution for the Adult Education Setting ..........................................................26
By Shannon M. Burns

DEPARTMENTS

President's Podium ..............................................5
Adult Learning—A Joy, A Tool, A Right and A Shared Responsibility
Lorilee Sandmann

Directions for Research ........................................7
Amy Rose

Resources .........................................................9
Trenton Ferro

Personal Reflections ............................................11
Recapturing the Vision
W. Franklin Spikes

ADVERTISERS INDEX

AAACE ...........................................................6
AGS ............................................................inside front cover
Cleveland State University .........................10
COABE .........................................................28
KET .............................................................19
University of Nebraska .................................25
NTC ............................................................inside back cover
Penn State University .................................15
Steck Vaughn ............................................back cover

Adult Learning
Editor: Andy Birney
Guest Editor, Numeracy: Lynda Ginsburg

Editorial Review Board
Anne Arsenault
John Boulemetis
Janet Brown
Michael Galbraith
Susan Hackney
Ellen Iornsides
Charles Kennedy
Gail Lyness
Jim Marshall
Connel McKee
Carol Pearson
Beth Pike
Cheryl Polson
Molly Sjovold
Gloria Taylor
Sally Vroman
Nancy Wilson Webber

AAACE Officers, 1997-98
President: Lorilee Sandmann
President Elect: Thomas Kinney
Past President: John Henschke
Treasurer: Bill McVey
Secretary: Rozelle Kenyon

Adult Learning (ISSN 1045-1595) is published four times annually by the American Association for Adult and Continuing Education, 1200 19th Street, NW, Suite 300, Washington, DC 20036-2422.

Subscriptions are $29 per year in the U.S., $34 in Canada and $39 foreign (U.S. funds). AAACE members receive Adult Learning at the annual subscription rate of $20 as part of their membership dues. For membership information, call (202) 429-5131.

Periodicals postage paid at Washington, D.C. Postmaster: send address changes to Adult Learning, 1200 19th Street, NW, Suite 300, Washington, DC 20036-2422.

Back volumes are available from University Microfilms International, 300 North Zeeb Rd., Ann Arbor, MI 48106.

Statements of fact and opinion are the responsibility of the authors alone and do not imply an opinion on the part of the officers or members of AAACE.

Author Guidelines are available from the editor. Call (202) 429-5131.

Individual authors hold the copyright to articles published in Adult Learning. Under federal copyright law, those who wish to reprint or reproduce articles in any format (including electronic) should contact the individual author for permission.
In Memoriam: Malcolm S. Knowles

By John Henschke

Editor's Note: We are all saddened at the passing of Malcolm S. Knowles, the father of the field of adult and continuing education, who passed away Thanksgiving Day, 1997. Following is the text of the eulogy delivered by John Henschke, past-president of AAACE, at Malcolm's memorial service on Dec. 14.

I am humbled and highly honored to be asked by Malcolm's family to deliver a professional eulogy at this memorial service for Malcolm Shepherd Knowles. A eulogy is to be of high commendation and warm praise, and this eulogy will also be very personal, a celebration of Malcolm's life, and a sharing of stories.

In one place the Bible says, "Whatever is true, honorable, just, pure, lovely, of good report, of virtue, and worthy of praise, think on these things." It also says in another place to "honor your father." I want to focus on this today regarding Malcolm.

The Father of the Field of Adult Education in the United States

While others had a hand in developing the field, his work brought it into prominence, and popularized the movement—to the delight of many, and to the dismay of others.

Announcing his death, The Fayetteville, Ark., newspaper referred to him as the "Father of Adult Education."

Malcolm's last book, Designs for Adult Learning, had the subtitle: Practical Resources, Exercises, and Course Outlines: From the Father of Adult Learning.

In a videotape interview at the University of Arkansas, Malcolm referred to himself as the "Grandfather of Adult Education."

He was the first executive director of the Adult Education Association of the United States, and launched our field into a new era. I am currently serving the third year of a three-year presidential rotation with AAACE, and I wear my AAACE lapel pin in honor of Malcolm.

As the first adult educator I studied with, he was to me all the things a father could be: originator, teacher, benefactor, guardian, master, advisor, progenitor, counselor, mentor, friend, and a human being.

Many would agree with the idea that when they think of him...

- He put the field of adult education on the map
- He got the attention of many who otherwise would not have noticed adult education
- He legitimated the field of adult education
- His work was defining in adult education
- He was a theory builder in adult education
The Father of American Andragogy

Andragogy is the art and science of helping adults learn, and facilitating self-directed learning. This is in contrast with pedagogy, the art and science of teaching children.

Malcolm received the word and concept of andragogy from a European colleague and popularized it here—the idea that adults need to be treated like adults and taught differently from children.


He pioneered andragogy in this country in 1967 and managed to help it flourish in the ensuing three decades. The concept is now alive and well.

To Malcolm, andragogy meant emphasizing and exemplifying congruence between theory and practice in adult education—in other words, treat adults as adults in the classroom or any other learning context.

When I wrote my doctoral dissertation at Boston University 25 years ago, it was on the topic of Malcolm's contribution to the theory and practice of adult education. He only served as an information resource to me. It was a contemporary history—like Arthur Schlesinger's _The Thousand Days_ with President Kennedy. I had the opportunity and privilege to teach with Malcolm, consult with him, work with him and study him in a variety of ways in developing my research.

One adult educator suggested that I place the data in a vault and get it out 50 years after Malcolm's death, and if the concept of andragogy survived that long in this country, Malcolm would receive major credit. If the past 25 years are any indication, I predict Malcolm's concept of andragogy and its practice will only grow in the United States in the next half-century.

Another doctoral dissertation was completed at a Texas university entitled, _Malcolm S. Knowles: The Father of American Andragogy_.

As one colleague said, characterizing her first encounter with Malcolm, "Oh my, I am a lowly, star-struck graduate student and I get to be at a conference with Malcolm Knowles. He got up; there were many people there; he gathered us into groups to discuss, and he talked with us. His method and message were consistent." Andragogy was practiced right before her eyes.

...there are students in tens or hundreds in this country who are reading or searching through his works. At every moment, there are people in thousands and millions in this country and around the world who are practicing his theory of andragogy. I am one of those doing it right now."

These stories of andragogy in action could be repeated numerous times.

A Prolific Scholar

Malcolm authored 19 books and more than 200 articles, many of which are currently being used as textbooks in graduate adult education. Some he co-authored with his beloved wife, Hilda.

He was busy and active up to the last days of his life.

His last book was published in 1996.

Many of these books have been translated into numerous languages, Turkish being one of the more recent ones.

It is especially appropriate that _The Adult Learner_ is the best seller of all his books. It has gone through four editions and now is in paperback.

_Self-Directed Learning_, though not revised since its original publication in 1975, is still a brisk seller.

The field has a voracious and insatiable appetite for his contributions. One colleague characterized this by saying, "I did not know him personally; as a graduate student I was very familiar with his extensive body of work and read everything of his I could get my hands on. Therefore, he has influenced my knowledge base and broadened my perspective on adult education."

He let us have a look deep inside him when he wrote _Making of an Adult Educator: An Autobiographical Journey_.

Another person said, "Coming out of high school education, I learned from him a new way of looking at things—one I had never thought of before."
One of my adult education graduates said to me, "I sat at the table and talked with him at adult education conferences. I didn't know who he was until I learned about him in the literature. He was such an unassuming, great man."

Someone also summarized, "His writing is very readable, engaging, fascinating, high quality, permeating the field."

And the stories could be repeated endlessly.

**A Man Who Lived Up to His Middle Name: Shepherd**

A shepherd, you know, is one who generally cares for, watches over, guides and provides for flocks—of learners, one who associates with as a friend, makes friendships with, companions with and keeps company with.

Every conference of adult educators I ever went to where Malcolm was either a participant or a presenter, there were always flocks of people gathered around him and talking with him.

He was a builder of alliances; gave tireless, patient and unfailingly leadership, in a quiet way, at the appropriate time, when the moment required it, he could be counted upon to offer exactly the right answer to a difficult question, always balancing imagination and creativity with what was practical and possible.

Someone said the best thing ever to happen in learning with Malcolm was that he "came down to my level, and I came up to his level." He treated learners as peers.

He permeated the field of adult education. When news traveled of his death, many people responded by saying, "I'll call such-and-such a person because he/she studied with Malcolm."

He was a beacon of light to the ship of adult education.

He kept the fire of passion for adult education burning brightly.

He opened the door and like a magnet drew us into an exciting, adventurous aspect of learning in the field of adult education.

When some of us were shy about the learning process, or became scared by previous learning experiences in less-friendly settings, he invited us to participate in a successful, educational experience and to adopt a new, positive attitude toward learning.

When we were grappling with some new problem or concept, he was always available and would ask, "How may I help?"

He helped us recognize that learners must motivate themselves. He took risks and made the tough decisions, blocked out the unnecessary and concentrated on the necessary, removed the barriers that prevented us from being self-motivated, led the actions required to achieve desired results, and inspired the passion within us to perform above expectations.

He helped us feel significant and realize that learning and competence mattered. He involved us as a part of a learning community, and made learning exciting and fun.

He was humorous and laughed heartily— even when he was in the midst of a scholarly argument, was being challenged or disagreed with by others.

When we highlighted the launching of the Malcolm S. Knowles Award during the awards luncheon at the AACE conference in Nashville, try as we may; we couldn't get him there because of bad weather. So we connected with him by telephone. He asked the 100 people at the banquet, "Are you having a good time?" In one corner, they shouted, "Yes!" He replied, "That sounds like a normal adult education conference." When Thurman White was given the first Knowles Award, he said, "Malcolm, I was seduced into coming here." Malcolm, with split-second timing, shouted over the phone to Thurman, "Enjoy it!"

When you learned in a classroom with Malcolm, you always knew he cared about what happened to you. He said so in words and deeds.

He was top notch in every way.

---

**Many Awards of Recognition**

Malcolm received numerous awards over his distinguished career. To name only four:

- He was inducted into the Human Resources Development Hall of Fame in the late 1980s.
- The Malcolm S. Knowles Award was established by the American Association for Adult and Continuing Education in the early 1990s.
- He was inducted in the International Adult and Continuing Education Hall of Fame in 1996.
- The Malcolm S. Knowles Scholarship Fund has now been established at the University of Arkansas.

When I brought him the award recognizing his entry into the International Adult and Continuing Education Hall of Fame, I asked him what we should be doing of importance in the field of adult education. He answered, "Recruit as many pioneers as you can, so that the movement of adult education continues to flourish because the glory days are ahead."

That is his charge and challenge to us, and that is the legacy he leaves to us.

Not having Malcolm here will be different. We will miss him, but he will live on in the hearts of us all.

As someone mused, "Malcolm's passing on the Day of Thanksgiving is truly symbolic for how we in the field of adult education loved our mentor. We celebrate his life and are thankful for his life among us."