References Cited

- Astin, A.W. 1992. What Matters in College? Jossey-Bass Publishers, San Francisco. 482 pp.
- Barth, R. 1990. Improving Schools from Within. Jossey-Bass Publishers, San Francisco. 190 pp.
- Bonwell, C. and J. Eison. 1991. Active learning: creating excitement in the classroom. (ASHE-ERIC Higher Education Report No. 1). George Washington University, Washington, DC.
- Boomer, G.S. and A.N. Moen. 1996. Bring students into the loop: Modeling wildlife ecology and management concepts and application. Pages 27-36 <u>In</u>: Proceedings of First Biennial Conference on University Education in Natural Resources, Pennsylvania State University, March 3-6, University Park, PA.
- Cohen, E.G. 1994. Designing Groupwork: Strategies for the Heterogenous Classroom. Teachers College Press, Columbia University, New York. 203 pp.
- Davis, B.G. 1993. Tools for Learning. Jossey-Bass Publishers, San Francisco. 429 pp.
- Fazzari, J.L., and A.N. Moen. 1996. Cooperative learning in natural resources classrooms and courses. Pages 7-15 <u>In</u>: Proceedings of First Biennial Conference on University Education in Natural Resources, Pennsylvania State University, March 3-6, University Park, PA.
- Fogarty, R. and J. Bellanca. 1992. The new school "lecture" cooperative interactions that engage student thinking.Pages 84-119 IN: Neil Davidson and Toni Worsham (editors). Enhancing Thinking Through Cooperative Learning. Teachers College Press, Columbia University, New York. 287 pp.

- Hamm, M. and D. Adams. 1992. The Collaborative Dimensions of Learning. Ablex Publishing Company, Norwood, NJ. 154 pp.
- Johnson, D.W. and R.T. Johnson. 1994. Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning. Allyn and Bacon, Boston. 292 pp.
- Johnson, D.W., R.T. Johnson, E. J. Holubec and P. Roy. 1984. Circles of Learning: Cooperation in the Classroom. Association for Supervision and Curriculum Development, Virginia. 88 pp.
- Moen, A.N. and D.J. Decker. 1996. The net cost of education innovation: more for less. Pages 16-26 <u>In</u>: Proceedings of First Biennial Conference on University Education in Natural Resources, Pennsylvania State University, March 3-6, University Park, PA.
- Moen, A.N., G.S. Boomer and M.C. Runge. 2000. Professional development of undergraduates in wildlife ecology and management. Wildlife Society Bulletin 28(1):180-190.
- Moen, A.N., S.R. Hall and T.N. Moen. 1998. Student authoring, editing and electronic publishing. Pages 155-163 <u>In</u>: Proceedings of Second Biennial Conference on University Education in Natural Resources, Utah State University, March 7-10, Logan, UT.
- Moen, A.N., C.R. Smith, C.C. Krueger, and B.L. Bedford. 1996. Integrating courses: Making the commitment and transition. Pages 181-189 <u>In</u>: Proceedings of First Biennial Conference on University Education in Natural Resources, Pennsylvania State University, March 3-6, University Park, PA.
- Perelman, L.J. 1992. School's Out: Hyperlearning, the New Technology, and the End of Education. William Morrow and Company, New York. 368 pp.
- Rheingold, H. 1991. Virtual Reality. Simon & Schuster, New York. 415 pp.

- Routman, R. 1991. Invitations: Changing as Teachers and Learners K-12. Heinemann, Portsmouth, NH. 502 pp + 142 pp.
- Runge, M.C. and A.N. Moen. 1996. No more black boxes: Programming and modeling in wildlife ecology and management courses. Pages 227-232 <u>In</u>: Proceedings of First Biennial Conference on University Education in Natural Resources, Pennsylvania State University, March 3-6, University Park, PA.
- Slavin, R.E. 1991. Student Team Learning: A Practical Guide to Cooperative Learning. National Education Association, Washington, DC. 128 pp.
- Ventimiglia, L.M. 1995. "Cooperative learning at the college level." Pages 19-39 *In* Interactive learning in the higher education classroom. National Education Association, Washington, D.C., Harvey C. Foyle, ed.
- Warner, S.L. and E.B. Rosenberg. 1976. Your Child Learns Naturally. Cornerstone Library, New York. 214 pp.

A CONCLUDING REMARK...

The list of references cited above is short, not because there is a shortage of material pertaining to the subject of this book but because it is not a review of the literature. Thousands of references promoting active, cooperative, and experiential learning at all educational levels have been published, many of them promoting more active learning in higher education 20 or 30 years ago. The professorial community seems to be somewhat unaware of these publications, or perhaps professors are particularly reluctant to change the model. It is my hope that this book will help professors recognize the benefits of active involvement of undergraduates in their own learning and help their students become life-long learners.

Index

This index includes many entries that are phrases rather than single words. Readers should review the entire list of entries for an overview of the topics in the book.

Active learning 11, 18, 20-21, 23, 37, 53, 95, 97, 149 Administration 1, 109-110 Applications course 97-100, 102-103 Arbitrary assessment 141-142 Authentic assessment 83, 89, 109-110, 142-145

Barriers to learning 2-8, 58, 107, 127-128, 148

Co-learner 18 Collaboration 44-46, 142 Communication 9, 14, 30, 35, 39, 66-67, 73-74, 78, 81, 93, 108, 113-114, 147, 149 Community of learners 25, 103, 131 Competition 90-91, 131, 148 Concept course 96, 98, 100,102 Conceptualizing 30, 43 Conceptual power 50, 56 Confidence 53-56, 126, 128, 143 Conflict 90-93, 135, 139 Connectedness of information 24, 35-36, 59 Cooperative learning Cooperative learning 9, 11, 18, 22-24, 26, 31, 37, 42-43, 47-49, 52-60, 66-68, 74, 77-98, 100, 102-104, 107-110, 116-121, 123-126, 128-140, 143-146 Cooperative teaching 58-59

Course continuum 41, 74, 87, 95-98, 100-103, 108, 110 Course evaluations 141 Curriculum 32, 40, 46-47, 95-96, 102 Creative learning 19, 45

Decision making 10, 13, 45, 52, 55, 66, 137 Deprogramming 123, 125-126

Editing protocol 69 Educational imperative 25 Efficiency in learning 22, 114-115 Efficiency in teaching 22, 88, 114-115 Encouragement 6, 16, 127, 138 Experiential learning 11, 17, 42

File folders 145

Group assessment 56, 143

Hyperlearning 17, 31, 36, 49, 51 Hypertext 36-37, 47-48, 62, 72, 106-107

Information age 14, 111-112 Information network 35 Information delivery 29, 78, 93, 112, 115 Information processing 14, 31-35, 37, 62, 108, 113-114, 119, 148 Information resources 16, 25, 29-30, 32, 37, 41, 48, 55, 78, 100, 104, 106-108, 129-130, 132, 136, 146 Information revolution 11, 44, 110-111, 113-114 Information system 17, 25, 29, 36-37, 47, 58-59, 62-69, 71-76, 100, 104-108, 131, 140, 143, 145 Information technology 13

Information transfer 24, 39, 88-89, 108 Innovation 119, 123 Interactive learning 11, 21, 23, 37, 53 Internet 32, 35 Knowledge domain 10, 40, 42, 47-48, 118, 121 Knowledge connections 44, 48 Knowledge is powerful 49, 60 Lateral transfer 47, 89 Learning and sharing 2, 23, 119, 147-148 Learning environment 2, 5-8, 11, 16, 18-23, 25-26, 31-33, 37, 39-41, 43, 45, 48-49, 51, 53-60, 68, 74, 76-79, 81, 83-85, 87-95, 98, 102-105, 107, 110-111, 115-121, 126, 129, 131-137, 139-140, 143-146, 148-149 Learning first 1, 150 Learning group 9, 52, 54-56, 60, 80, 85, 98-100, 104, 110, 120, 131, 143 Learning in advance 8-9 Learning is fun 24, 127 Learning is natural 1, 6, 8, 13, 16, 22-23, 42, 111, 117, 127, 148 Learning premises 117 Learning success 149 Learning to learn 13, 112 Lecture 2, 18, 21, 47, 59, 74, 77, 93-96, 100-102, 104, 109-110, 112-113, 123, 128, 133-134, 136, 144, 146 Lecture period 78, 82, 95, 124-125, 129, 131 Life-long learning 9, 14, 16, 18, 21, 32, 33, 137, 147, 148 Limiting factor 29, 45-46 Local area network 61, 63-64, 66, 68, 79, 102, 105, 107, 110, 119, 130, 140 Mentoring 84, 103, 131

Models 21-22, 26, 44, 53, 85-86, 95, 97, 99-100, 102, 109, 112, 115, 117, 123, 126, 130, 133, 139-141 Mouse-power 35 Multimedia 36-37, 47 N-dimensional learning 39-40, 43, 48 Negotiation 43, 53 Oral communication 39, 66-67, 81 Peer editing 26, 67 Peer pressure 9, 84, 91 Problem solving 7, 9, 13, 30, 43-45, 48, 50-52, 87, 93, 113, 117, 119-121, 127, 136, 146-147 Professorial power 57-58 Programming 43, 86, 99, 101, 123, 125-126, 140 Quality control 33, 132 Responsibility 8-9, 14, 18, 23, 26-27, 31-32,35, 55-57, 63, 67-69, 87-89, 93, 100, 103, 108, 111, 115-116, 125, 127-128, 131-132, 135-137, 142-143, 145 Risk-taking 121, 131, 149 Seamless courses 46, 59-60, 90, 148 Seamless disciplines 108 Skills needed 51, 84, 129, 133, 135-137 Statistics 4, 33, 96, 106-107, 114-115 Student authors 64-72, 86, 105 Student editor 26, 62, 67-70 Student power 56-57 Student publishing 56, 62-64, 71, 76

Teaching assistants 26, 67, 85-87, 103, 110, 120, 131, 134-135
Term papers 25, 61-63, 65, 67, 69-70, 77-78, 105, 119, 123, 140
Thinking skills 9, 19, 45, 136
Time management 27, 88-89, 111, 135
Traditional curriculum 46, 95
Traditional lecture 21, 93, 101, 104, 124, 128, 134, 144

Ultimate goal 57, 91, 150

Vertical transfer 24, 46-47 Virtual reality 34

World Wide Web 105, 113 Writing templates 65-66 Writing to learn 27, 55 Written and oral communication system 66