ABSTRACT
            Adult learning theory and research on professional
development provide a rich background context for examining school
leader development for school improvement. The literature on adult
learning theory identifies the following generalities about adults as
learners: age reduces the speed of learning; adult learners bring
life experiences to bear on new learning; adult learners exist in
situations separate from the learning environment; and adult learners
control what is learned. Research on staff development identifies
characteristics that contribute to the success of staff development
programs. Three researchers offer design components that emphasize a
systematic approach to move participants from awareness of the new
learning through transfer and application, a process for promoting
long-term behavior change through staff development. Other factors
that affect the success of staff development programs are relevant to
the content or design. Drawing from adult learning theory and the
research on professional development, a single set of descriptors can
be identified as components of effective programs for adult
professional development. The descriptors are divided into three
major areas: those that describe program content and how it is
determined, those that describe the design of the program delivery
model, and those that describe appropriate post-program follow-up
with participants. An outline of criteria for program description
analysis by Jocelyn Butler and Robert Blum is attached. (53
references.) (YLB)

PROGRAM ⚠ REPORT

ED308334

A REVIEW OF ADULT LEARNING THEORY AND STAFF DEVELOPMENT RESEARCH
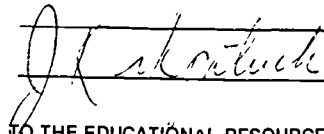
Jocelyn A. Butler

January 1989

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204

2

A Review of Adult Learning Theory and Staff Development Research

Jocelyn A. Butler

A CONTEXT OF CHANGE

Motivation for inservice is directly connected with the potential opportunity to change practice.
(Corrigan, 1980)

Adult learning theory and research on professional development provide a rich background context for examining school leader development for school improvement. It is important to understand how adults learn and to be familiar with what research shows to be most effective in the design of programs for professional development. Initially, however, it is imperative to place these two areas within the context of change: moving school leaders through a program to alter their behaviors requires that they themselves undergo change and that they be prepared to lead change efforts in their schools.

Key findings from the research on change relate directly to effective professional development programs. Research on the implementation of innovations has defined elements of change that can be applied to development programs for school leaders (Hall and Loucks, 1978):

- Change is a process, not an event. Introduction to and training in new ways of doing things does not assure that people will immediately begin to do them. Change is a process that must unfold over time.

- Change must be understood in terms of what happens to individuals. Understanding how individual school leaders may respond to changing their behaviors and practices is critical.

- Change for individuals is a highly personal experience. Each school leader perceives, feels about and reacts to change in an individual way.

- Change by individuals entails developmental growth both in terms of how they feel about the change and their skill in applying any innovations. This incremental growth is part of the process of change which an individual undergoes over time.

(From: Blum, Robert E. and Butler, Jocelyn A. School Leader Development for School Improvement, International School Improvement Project Technical Report #8. Leuven, Belgium: ACCO. In press.)

It is in this context of change that school leaders complete professional development activities as adult learners being prepared to lead school improvements.

SCHOOL LEADERS AS ADULT LEARNERS

The learner is a person who wants something; the learner is a person who notices something; the learner is a person who does something; the learner is a person who gets something. (John Dollard, in Kidd, 1975)

The programs which are the focus of this book are all designed to change the behaviors of school leaders to prepare them for leading school improvement efforts. This focus on changing behavior is typical of adult learning situations.

School leaders, for the most part, are experienced professionals with extensive backgrounds in educational practice. They have worked in schools and in classrooms, they have some experience in the management of schools, and they are all involved in programs to increase their skills and knowledge as professionals. They are experienced, capable adult learners, and the variety of experiences they bring with them to development programs will affect what and how they learn.

To understand and analyze development programs for school leaders, some knowledge of adult learning theory is helpful. There is a vast amount of information available on adult learning. While much of this body of knowledge is observational and philosophical in nature rather than derived from research studies, a brief look at key areas of general agreement is appropriate. A bibliography at the end of this section cites a number of resources for further information on adult learning.

No single theory or set of theories seems to have an arm-lock on understanding adults or helping us work effectively and efficiently with them.
(Zemke, 1981, p. 45)

There is a broad spectrum of adult learning theory, summarized below by Corrigan (1980). There are:

- *Psychosocial theories* focusing on older students using new knowledge in life beyond the classroom

- *Maturity theories* examining learning in terms of various areas of the development of the self (intellectual, interpersonal, ethical, personal concept) which are all interrelated

- *Typology theories* looking at individual differences among adult learners and how such factors as personality, temperament and sociological influences interact with the developmental process

- *Person-environment theories* attempting to understand the learner in terms of interactions with the environment

- *Cognitive developmental theories* looking at how adults think, receive information, interpret information and make meaning of it: how the person interacts with new data. (pp 17-19)

Overall, these theories tend to group into two major schools of thought. First, there is the group of theorists who believe that the process of learning does not change and that learning is learning at any age: it is the nature of the learner and the interaction with the basic learning process that changes. The second group hold that the processes of adult learning and child learning are quantitatively and qualitatively different.

Rather than providing a description of all varieties of adult learning theory, a review of the literature was completed in order to identify common descriptors of adults as learners, as follows:

- Age does not reduce a person's ability to learn but may reduce the speed at which learning takes place. In addition, because of time elapsed since earlier learning experiences, adults may underestimate their own abilities to learn and/or may need additional time to adjust to new learning conditions.

- The adult learner is a person with a sense of self, bringing all previous life experiences, both personal and professional, to bear on new learning. Past experiences affect what the learner learns and are the foundation for current learning. Learning takes place best when new learnings are demonstrably tied to or built upon past experiences.

- Adult learners exist in situations separate from the learning context. They are motivated to learn by changes in their situations and learn best when new learnings apply in practical ways and/or are relevant to the changes in their situations.

- The adult learner controls what is learned, selecting new information and/or deciding how to use it, and this takes place at both the conscious and unconscious levels.

- Adults tend to be problem-centered rather than subject-centered learners and learn better through practical applications of what they have learned.

- Adult learners must be treated as adults and respected as self-directed persons. They learn best in non-threatening environments of trust and mutual respect.

- The optimum role of the adult learner in the learning situation is of a self-directed, self-motivated manager of personal learning who collaborates as an active participant in the learning process and takes responsibility for learning.

- Adults learn in a variety of ways and there is no one right method of learning.

- Continued learning depends on achieving satisfaction, especially in the sense of making progress toward learning goals that reflect the learner's own goals.

RESEARCH ON PROFESSIONAL STAFF DEVELOPMENT

Research shows the most effective staff development programs are designed for school improvement rather than for staff personal professional improvement.
(Gall, 1985)

Strong and regular training is an essential aspect of an environment favorable to school improvement.
(Joyce, Hirsk and McKibbin, 1983)

Research on staff development also offers direction in the examination of school leader development for school improvement. This research base includes teacher in-service experiments, basic skills instruction experiments, teacher effects research, implementation research, descriptive survey research on teacher preferences and attitudes, and research on teacher expectations, principals and achievement testing (Gall, 1985). These studies show that there are identifiable characteristics which

contribute to the success of staff development programs. While the majority of these studies focus on development for teachers, much of what has been found is applicable to school leader development.

Professional staff development comes in many forms. It can take place in the workplace or away from the place of work, it can be required or voluntary, it can be offered by an organization or sought independently by an individual. Two-hour lectures, three-day conferences and year-long courses can all be considered staff development. Generally, however, three types of staff development, identified by Korinek (1985), are most common:

- Information transfer: participants receive information about new approaches, techniques, requirements, etc.

- Skill acquisition: participants are taught a way to do something

- Behavior change: new information and/or skills are taught with the expectation that participants will apply the new learning and change their behaviors.

Of the three, the most long-lasting effects are derived from the behavior-change type of staff development program.

In their review of the research, Gall and Renchler (1985) identified four purposes for the various types of professional development programs:

- Personal professional development: a self-directed approach based on individual needs and choice

- Credentialling: successful completion of a program is required for licensing or certification

- Induction: the supplementing of skills and knowledge for the newly-hired

- School improvement: staff development to improve student performance by improving staff skills and knowledge.

According to this work, staff development tied to school improvement is more effective than that providing personal professional improvement.

In other work, Joyce and Showers (1980) identified four levels of impact for staff development programs:

- Awareness: participants realize the importance of new information and begin to focus on it

- Concepts and Organized Knowledge: concepts are understood and organized

- Principles and Skills: principles and tools for action are understood and participants can think effectively about them and have the skills needed to act to apply them

- Application and Problem Solving: participants transfer new information in problem-solving fashion to real-life professional situations.

At the transfer level of impact, participants in development programs have internalized the new content and are capable of using it.

The overall structure of staff development programs appears to influence the programs' level of impact. Several researchers have studied program components to identify those which are essential to this overall structure.

In their study of staff development for teachers, Joyce and Showers (1980) identified the following components of effective development programs:

- Presentation of theory or description of the new skill or strategy

- Modeling or demonstration of skills or strategic models

- Practice in simulated and actual settings

- Structured and open-ended feedback to provide information about performance in the practice

- Coaching for application, the follow-up work to help with the at-home implementation of the new skill and/or knowledge.

According to Joyce and Showers, these components vary in their importance to the reaching of the transfer level of impact, with evidence strongest for modeling and feedback. They hypothesize that the combination of all five components has the greatest power.

Stallings, Needels and Stayrook (1978) identified another set of components of effective development programs:

- Pretest: the diagnosis of current level of expertise vis-à-vis the new knowledge/skill

- Inform and discuss: new material is presented and time is made available for participant discussion

- Guided practice and feedback: the application in a simulated setting with direct comment in response to the practice

- Post-test: the rechecking of participant level of knowledge/skill to ascertain whether learning has taken place.

Through a review of research, Sparks (1983) created a combined list of components:

- Diagnosing and prescribing: the pre-program assessment of participants' needs and ways to meet them

- Giving information and demonstrating its application

- Discussing application

- Practicing and giving feedback

- Coaching.

Each of these researchers offers design components of successful staff development. While there are variations, all three emphasize a systematic approach to move participants from awareness of the new learning through transfer and application, a process for promoting long-term behavior change through staff development. In any case, these components must be translated into actual learning activities within the context of a staff development program.

DEVELOPING THE PROGRAM

In addition to supporting designs for systematic approaches, the research indicates that there are a number of other factors which affect the success of staff development programs. Some of these are relevant to the content

of the development program, while others relate to the design of the programs.

The researchers focusing on this area tend to summarize their findings in the form of lists of practices or elements found to contribute to program effectiveness. Rather than a lengthy series of such lists, the following synthesis of contributing factors is provided. Further information about research on professional staff development may be found in the studies and syntheses cited in the bibliography at the end of this section.

Staff development is more effective when the following are in effect:

Program Content

- Programs are planned in response to assessed needs of the participants and content matches the current developmental level of participants.

- Participants are clearly expected to be actively involved in learning and to take responsibility for their own learning: self-directed learning is emphasized.

- The program takes into account that participants will have different concerns at different stages in the process of change.

- There are clear, specific goals and objectives related to implementation.

- The use of new behaviors is made very clear, and applicability to individuals' home situations is understood.

- Focus is on school improvement rather than on personal professional development.

- Content is research based and is tied to student performance.

- Content is concrete and aimed at developing specific skills rather than just introducing new concepts. The theoretical basis or rationale is part of the content about new skills.

- Between-workshop content, such as observation, visitation and discussion, is included to facilitate implementation.

- Preparation for evaluating application and/or implementation is built into the program.

Program Design

- Development takes place in more than one incident, and incidents are spaced over time.

- Training is conveniently scheduled to avoid interfering with ongoing job requirements of participants.

- Development activities take place at a convenient location.

- There is administrative support for the effort.

- Trainers have credibility with the trainees.

- Participants are involved in planning, development and presentation of the training program.

- Content is presented in a variety of modes and through a variety of activities, including opportunities for both individual and whole-group instruction and small group discussion.

- Complex knowledge and/or skills are introduced gradually, with the understanding that the more complex the content, the more time is needed to learn and practice it.

- There is reinforcement of learning both within the program and as part of the post-program follow-up.

- Opportunities for collegial learning are integrated in the program: participants work with and learn from each other.

- Readiness activities or self-diagnosis are included at the beginning of the program to ascertain current participant skill levels.

- New material is presented and then modeled in the course of the program.

- There are opportunities for practice and experimentation in non-threatening situations so participants can receive non-threatening feedback on something they produce (a presentation, a product).

- A follow-up component provides support and/or assistance in the actual implementation and application of the new knowledge/skills (e.g., peer coaching) and includes some type of accountability to assure that implementation actually takes place and application is maintained.

- The process provides for mutual adaptation between the new information and requirements and the situation: the learner is able to adjust personal behavior and adjust the situation to fit the new behavior.

DESCRIPTORS OF EFFECTIVE DEVELOPMENT PROGRAM STRUCTURE

Drawing from adult learning theory and from the research on professional development, a single set of descriptors can be identified as components of effective programs for adult professional development. The descriptors are divided into three major areas: those that describe program content and how it is determined, those that describe the design of the program delivery model, and those that describe appropriate post-program follow-up with participants.

Content Clarity, Relevance and Usefulness

Program content reflects clear program goals and operational objectives defining what participants will learn and how they will be able to use the new learning. Content builds on their prior experience, clearly relates to their home situations and prepares them to apply what they have learned. Research support for program content is clear, providing the rationale for application. Both knowledge (the understanding of background and concepts) and skills (the ability to put knowledge into operation) are included in the program. Participant evaluation and accountability are integrated into the program to increase incentives for learning and application.

Multi-Faceted Delivery Model

To facilitate learning, the program is delivered in more than one incident over an extended period of time. The model includes presentation of new material, demonstration, practice, feedback and follow-up for evaluation and accountability. There are readiness activities as the program begins, and complex new material is presented incrementally, with repeated checking for understanding. The model includes a variety of instructional

modes and activities (individual and group learning, lecture, discussion, video and/or role-play, etc.). As part of the program design, participants learn collegially, in cooperative situations, with and from each other.

Follow-Up

To reinforce and monitor new behaviors, to assist in implementation and/or to provide support in transferring new knowledge and skills to the home situation, there is systematic, long-term follow-up of program participants. Participants are accountable for implementing the new knowledge and skills. To help them in this implementation, the program provides for feedback as part of the follow-up activities.

<div align="center">REFERENCES</div>

Adult Learning

BRUNDAGE, D.H. and MACKERACHER, D., 1980, *Adult Learning Principles and Their Application to Program Planning*, Toronto: Ministry of Education.

CORRIGAN, D., HABERMAN, M. and HOWEY, K., 1979, *Adult Learning and Development; Implications For In-Service Teacher Education—An American Point of View*, Paris: Centre for Educational Research and Innovation, Organisation for Economic Co-Operation and Development.

CROSS, K.P., 1981, *Adults as Learners*, San Francisco: Jossey-Bass Publishers.

DRAVES, W.A., 1984, *How to Teach Adults*, Manhattan, KS: Learning Resources Network.

KIDD, J.R., 1975, *How Adults Learn*, New York: Association Press.

KNOWLES, M., 1970, *The Modern Practice of Adult Education: Andragogy versus Pedagogy*, Chicago: Folklett Publishing Co.

KNOWLES, M., 1978, *The Adult Learner: A Neglected Species*, Houston, Texas: Gulf Publishing Company.

KNOWLES, M.S. and ASSOCIATES, 1984, *Andragogy in Action*, San Francisco: Jossey-Bass Publishers.

KNOX, A.B., 1977, *Adult Learning and Development*, San Francisco: Jossey-Bass Publishers.

O'CONNELL, C., 1985, "Review of Research on Conducting Workshops," Portland, Oregon: Northwest Regional Educational Laboratory.

SMITH, R.M., 1985, *Learning How to Learn; Applied Theory for Adults*, Milton Keynes: The Open University Press.

VERDUIN, J., MILLER, H. and GREER, C., 1977, *Adults Teaching Adults: Principles and Strategies*, Austin, Texas: Learning Concepts.

ZEMKE, R. and ZEMKE, S., 1981, "30 Things We Know For Sure About Adult Learning," *Training*, June, pp. 45-52.

Professional Staff Development

AEC TRUST., 1984, *Learning From Europe: Studies in Education Policy and Administration for the AEC Trust*, Harlow: Councils and Education Press.

BECK, J. and COX, C. (eds.), N.D., *Advances in Management Education*, Chichester: John Wiley and Sons.

BERMAN, P. and MCLAUGHLIN, M.W., 1975, *Federal Programs Supporting Educational Change Vol. IV; The Findings in Review*, prepared for the U.S. Office of Education, Department of Health, Education and Welfare, Santa Monica, CA: Rand, (R-1589/4-HEW).

BOYDELL, T. and PEDLER, M. (eds.), 1984, *Management Self-Development: Concepts and Practices*, Farnborough: Gower Publishing Company Ltd.

BUCKLEY, J., 1985, *The Training of Secondary School Heads in Western Europe*, Windsor: The NFER-Nelson Publishing Company Ltd.

BURGOYNE, J. and STUART, R. (eds.), 1978, *Management Development: Context and Strategies*, Guidford: Gower Press.

CALLAN, M.F. and HALL, G.C. (eds.), 1986, *Staff Development* (Phi Delta Kappa Exemplary Practice Series), Center on Evaluation, Development and Research.

CORRIGAN, D., 1980, "In-Service Education and Training of Teachers: Towards New Policies," Paris: Centre for Educational Research and Innovation, Organisation for Economic Co-operation and Development.

DILLON-PETERSON, B. (ed.), 1981, *Staff Development / Organization-Development*, Alexandria, VA: Association for Supervision and Curriculum Development.

DUKE, D.L. and CORNO, L., 1981, "Evaluating Staff Development," in Dillon-Peterson, B. (ed.) *Staff Development / Organization Development*, Alexandria, VA: Association for Supervision and Curriculum Development.

ERIC CLEARINGHOUSE ON EDUCATIONAL MANAGEMENT, 1980, "Research Synthesis on Staff Development," *Educational Leadership*, Vol. 38, November, pp. 182-185.

EASTERBY-SMITH, M., BRAIDEN, E.M. and ASHTON, D., 1980, *Auditing Management Development*, Farnborough: Gower Press.

FERRY, G., 1979, "Issues and Practices in Adult Education: Some Points of Reference for Teacher Training," Paris: Organisation for Economic Co-Operation and Development.

FULLAN, M., 1982, *The Meaning of Educational Change*, New York: Teachers College Press.

GALL, M.D. and RENCHLER, R.S., 1985, *Effective Staff Development for Teachers: A Research-Based Model*, Eugene, Oregon: ERIC Clearinghouse on Educational Management, College of Education, University of Oregon.

GLATTER, R., 1984, *Block 6 Managing for Change*, Open University course E324, "Management in Post-Compulsory Education," Milton Keynes: The Open University Press.

HALL, G.E. and HORD, S.M., 1987, *Change in Schools: Facilitating the Process*, Ithica: State University of New York Press.

HALL, G.E. and LOUCKS, S.F., 1978, "Teacher Concerns as a Basis for Facilitating and Personalizing Staff Development," *Teachers College Record*, Vol. 80, No. 1, September, pp. 36-53.

HALL, G.E. and LOUCKS, S.F., 1980, *Program Definition and Adaptation: Implications for Inservice.* Austin: Research and Development Center for Teacher Education, University of Texas, 1980.

HAMBLIN, A.C., 1974, *Evaluation and Control of Training*, London: McGraw-Hill Book Company.

HOWEY, K., 1985, "Inservice Research—Six Functions of Staff Development: A Selective Review of the Literature," *R&DCTE Review: The Newsletter of the Research & Development Center for Teacher Education*, Vol. 3, No. 1-2, Spring-Summer, pp. 9-10.

HUBERMAN, A.M. and MILES, M.B., 1984, *Innovation Up Close: How School Improvement Works*, New York: Plenum Press.

JOYCE, B.R., HERSH, R.H. and MCKIBBIN, M.K., 1983, "Effective Staff Training for School Improvement," *The Structure of School Improvement*, New York: Longman, Inc.

JOYCE, B. and SHOWERS, B., 1980, "Improving Inservice Training: The Messages of Research," *Educational Leadership*, February, pp. 379-385.

JOYCE, B. and SHOWERS, B., 1982, "The Coaching of Teaching," *Educational Leadership*, October, pp. 4-10.

KORINEK, L., SCHMID, R. and MCADAMS, M., 1985, "Inservice Types and Best Practices," *Journal of Research and Development in Education*, Vol. 18, No. 2, Winter, pp. 33-38.

LEHMING, R. and KANE, M. (eds.), 1981, *Improving Schools: Using What We Know*, Beverly Hills: Sage Publications.

LITTLE, J.W., 1982, "Norms of Collegiality and Experimentation: Workplace Conditions of School Success," *American Educational Research Journal*, Vol. 19, No. 3, Fall, pp. 325-340.

LOUCKS, S.F. and ZIGARMI, P., 1981, "Effective Staff Development," *Educational Considerations*, Vol. 8, No. 2, Winter, pp. 4-8.

ODIORNE, G.S., 1984, *Strategic Management of Human Resources*, San Francisco: Jossey-Bass Publishers.

ORLICH, D.C., 1984, *A Handbook for Staff Development*, Federal Way, WA: The State Staff Development Council.

PEDLER, M., BURGOYNE, J. and BOYDELL, T., 1978, *A Manager's Guide to Self-Development*, London: McGraw-Hill.

PORTER, D. and PADLEY, J.S., 1982, *Training University Administrators in Europe*. Aldershot: Gower Publishing Company.

PORTER, J. (ed.), 1979, *Adult Learning and Development: Implications For In-Service Teacher Education—Points of View Reflecting Experience in the United Kingdom*, Paris: Centre for Educational Research and Innovation, Organisation for Economic Co-Operation and Development.

REVANS, R.W., 1980, *Action Learning: New Techniques for Management*, London: Blond and Briggs Ltd.

RYAN, T.F. and CROWELL, R.A., 1982, "Evaluation for Non-Evaluators: Assessing Staff Development Outcomes," *The Journal of Staff Development*, Vol. 3, No. 1, April, pp. 156-169.

SCHEIN, E.H. and KOMMERS, D.W., 1972, *Professional Education: Some New Directions*, New York: McGraw-Hill Book Company.

SPARKS, G.M., 1983, "Synthesis of Research on Staff Development for Effective Teaching," *Educational Leadership*, November, pp. 65-72.

STALLINGS, J., NEEDELS, M. and STAYROOK, N., 1978, *How to Change the Process of Teaching Basic Reading Skills in Secondary Schools: Phase II and Phase III Final Report*, Menlo Park, CA: SRI International.

WOOD, F.H., MCQUAIRRIE, F.O., JR. and THOMPSON, S.R., 1981, "Designing Effective Staff Development Programs," in Dillon-Peterson, B. (ed.), *Staff Development / Organization Development*, Alexandria, VA: Association for Supervision and Curriculum Development.

Criteria for Program Description Analysis

Jocelyn A. Butler and Robert E. Blum

The research on the principalship, the International School Improvement Project Area II exploration of the school leader, adult learning theory and the research on professional development all provide insight into the nature of successful development programs for school leaders. In this section, a composite of key elements from these sources becomes the set of criteria for analysis of school leader development programs described in this book.

The criteria for program description analysis below are organized into three major areas: Program Content, Program Delivery Model and Post-Program Follow-Up. These criteria reflect the authors' selections of the strongest descriptors of successful school leader development programs for school improvement.

ANALYSIS CRITERIA

I. Program Content

1. Are program goals and operational objectives clear?

2. Is program content explicitly derived from research?

3. Is program content relevant, useful and applicable by:

   - Building on prior experience
   - Relating to home situations?

4. Does content build school leader knowledge specifically about the following five areas *and* does it build skills for applying this knowledge to establish and maintain them:

   - Clear vision
   - Clear improvement goals
   - Positive climate and culture
   - Quality curriculum and instruction
   - Monitoring of school performance?

5. Does the program include participant evaluation and accountability?

II. Program Delivery Model

6. Is the program delivered in more than one incident over an extended period of time?

7. Is the model multi-faceted to include incremental presentation of new material, demonstration, practice, feedback and follow-up for evaluation/accountability?

8. Are there readiness activities as the program begins?

9. Does the model include a variety of instructional modes and activities (individual and group learning, lecture, discussion, video and/or role-play, etc.)?

10. Do participants learn collegially with and from each other?

III. Post-Program Follow-Up

11. After the completion of the program, is there systematic long-term follow-up to reinforce and monitor new behaviors, to assist in implementation and/or to provide support in transferring new knowledge/skill to the home situations?

12. Is there long-term participant accountability for implementing the new knowledge/skills?

13. Do participants receive feedback as a part of the long-term follow-up activity?

Northwest Regional Educational Laboratory
Robert R. Rath, Executive Director
Ethel Simon-McWilliams, Associate Director

The Northwest Regional Educational Laboratory (NWREL) is an independent, nonprofit research and development institution established in 1966 to assist education, government, community agencies, business and labor in improving quality and equality in educational programs and processes by:
- Developing and disseminating effective educational products and procedures
- Conducting research on educational needs and problems
- Providing technical assistance in educational problem solving
- Evaluating effectiveness of educational programs and projects
- Providing training in educational planning, management, evaluation and instruction
- Serving as an information resource on effective educational programs and processes
     including networking among educational agencies, institutions and individuals in the region

Center for Advancement of Pacific Education
John Kofel, Director
Center for National Origin, Race, and Sex Equity
Ethel Simon-McWilliams, Director
Education and Work
Larry McClure, Director
Evaluation and Assessment
Gary Estes, Director

Literacy, Language and Communication
Stephen Reder, Director
Planning and Service Coordination
Rex Hagans, Director
R&D for Indian Education
Joe Coburn, Director
School Improvement
Bob Blum, Director
Technology
Don Holznagel, Director

Western Center for Drug-Free School and Communities
Judith A. Johnson, Director

Institutional Development and Communications
Jerry Kirkpatrick, Director
Finance and Administrative Services
Joe Jones, Director

Board of Directors

Nancy Keenan
Montana Superintendent of
Public Instruction

C.J. Baehr
Manager, Hawaii Interactive
Television System

Charles Bailey
Education Director
Washington State Labor Council AFL/CIO

Robert D. Barr
Dean, OSU/WOSC School of Education
Oregon State University

Barbara Bell
Attorney
Great Falls, Montana

Jacob Block (Secretary-Treasurer)
Superintendent
Missoula Elementary District (Montana)

Reina J. Bohanek
Teacher
Coeur d'Alene School District (Idaho)

Judith Billings
Washington Superintendent of Public
Instruction

Catalino Cantero
Assistant to the Secretary for Education
Federated States of Micronesia

William Demmert
Alaska Commissioner of Education

Jean M. Dobashi
Teacher
Kauai High/Intermediate School (Hawaii)

Verne A. Duncan
Oregon Superintendent of Public Instruction

Jerry L. Evans
Idaho Superintendent of Public
Instruction

Earl Ferguson
Superintendent
Klamath Falls Union High
  School District (Oregon)

Joseph Haggerty
Principal
Blanchet High School
Seattle, Washington

James E. Harris
Beaverton School Board (Oregon)

Richard L. Hart
Dean, College of Education
Boise State University (Idaho)

Marlys Henderson
Teacher
Fairbanks School District (Alaska)

Jerry Jacobson
Superintendent
Idaho Falls School District (Idaho)

Homer Kearns
Superintendent
Salem-Keizer School District (Oregon)

Spike Jorgensen
Superintendent
Alaska Gateway School District

John Kohl
Dean, College of Education
Montana State University

Dale Lambert
Teacher
Eastmont School District (Washington)

Joe McCracken
Superintendent
Lockwood Elementary District (Montana)

Zola McMurray
Business Woman
Lewiston, Idaho

G. Angela Nagengast
Teacher
Great Falls High School (Montana)

Edie Omer
Teacher
Corvallis School District (Oregon)

Barney C. Parker (Chairman)
Superintendent
Independent District of Boise (Idaho)

Rosa Salas Palomo
Director of Education
Guam Department of Education

Fred Pomeroy
Superintendent
Kenai Peninsula Borough Schools (Alaska)

Dennis Ray
Superintendent
Walla Walla School District (Washington)

Doris Ray
Fairbanks School Board (Alaska)

Henry Sablan
Superintendent of Education
Commonwealth of Northern Mariana Islands

Tauese Sunia
Director of Education
Government of American Samoa

Charles Toguchi
Superintendent
Hawaii Department of Education

Doyle E. Winter (Vice Chairman)
Superintendent
Educational Service District 121
Seattle, Washington

Center for the Advancement
of Pacific Education
1164 Bishop Street, Suite 1409
Honolulu, Hawaii 96813
(808) 533-1748
        BDE961
) 523-1741

NWREL Headquarters
101 S.W. Main Street, Suite 500
Portland, Oregon 97204
(503) 275-9500
SOURCE: STL058
FAX: (503) 275-0489

Alaska Office:
Goldstein Building, Room 506
130 Seward Street
Juneau, Alaska 99801
(907) 586-4952