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## ABSTRACT

A project was conducted to determine the need for and to create a distance learning-based staff development program for adult literacy instructors throughout Pennsylvania. Each of Pennsylvania's 306 adult literacy programs was sent a survey regarding their staff members' access to and knowledge about distance learning technology. Of the 100 programs responding (a 33% response rate), 97% indicated an interest in participating in distance learning. On the basis of the needs specified on the returned questionnaires, training modules were developed in the following areas: stress management, total quality management, teaching math, and time management. Staff development workshops based on the four modules were offered at several different dates and times; however, despite the high level of interest in distance learning indicated on the returned questionnaires, attendance at the workshops was extremely low. (Appendixes constituting more than 75% of this report contain the following: copy of the interim report; survey instrument and cover letter; letter announcing times/locations of the distance classes; and list of agencies providing adult literacy programs in Pennsylvania and program addresses and contact persons. The four project-developed learning modules are included: "You Want Me to Teach Math?" by Joyce Packard Kerrick; "A Distance Staff Development Presentation on Stress Management"; "A Distance Staff Development Presentation on Total Quality Management"; and "Time--Do You Manage It or Does It Manage You?" by Joyce Packard Kerrick.) (MN)

ED 395 124

## STAFF DEVELOPMENT THROUGH DISTANCE LEARNING

### FINAL REPORT

JACK TRUSCHEL, MA, MPA, ABD  
JOYCE KERRICK, M.ED

LACKAWANNA JUNIOR COLLEGE  
ADULT LITERACY PROGRAMS  
901 PROSPECT AVENUE  
SCRANTON, PA 18505

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**STAFF DEVELOPMENT THROUGH DISTANCE LEARNING**  
**353 SPECIAL Project #99-5031**

**I. ABSTRACT**

This report provides the details of activities of the Staff Development project titled "Staff Development through Distance Learning".

Distance learning is an educational tool that will be a very valuable resource for adult educators in Pennsylvania.

The Objectives of this project include:

1. Study Distance learning technology in Pennsylvania.
2. Compile a survey and ascertain the abilities of programs for distance learning and their staff development and curricula needs.
3. Development of curricula for presentations in the areas of Stress Management, Learning Styles, Time Management, and Teaching Math to Adult Students.

The target audience for this report would be anyone interested in activities related to staff development for adult education and literacy practitioners.

## II. INTRODUCTION

This proposal was a joint submission between East Stroudsburg University (ESU), Lackawanna Junior College (LJC), and Literacy Inc. (LI).

According to a Rural Services report which was disseminated March of 1994, there is a need to provide distance learning, especially to our rural and at risk population. Since a large portion of Pennsylvania is considered rural, the most effective and efficient way to provide staff development and possibly even curricula is through distance education. According to Clark and Astuto, the educational reform movement has produced disappointing results. New technologies have spawned a revolution in long-distance education which had remained relatively unchanged from the 19th century. Other occupations have and are using distance technology in order to reduce costs. According to Fred Rayner, video conferencing can satisfy the modern training and communication needs of the police. Studies have shown that training through visual displays helps conduct meetings, makes announcements and provides staff training, and as a result reduces time and money.

There have been many positive programs as a result of distance education. According to Patricia Takemoto, distance learning can provide training of staff, update staff on rules, regulations and laws and provide a motivating experience for adult learners.

The specific goals of the proposal were:

**To study distance learning technologies in Pennsylvania**

**To compile the survey and ascertain the abilities of programs for distance learning and their staff development and curricula needs.**

**Develop Stress Management, Learning Styles Presentation, Time Management Presentation, and Math Curricula as the initial programs to be delivered via distance technology to four programs three times in the grant year.**

### **III. PERSONNEL**

The administration of this grant was supervised by Joyce Kerrick. The program director was Jack Truschel, with support from other experts. The technical details related to the development of the presentation and curricula will occur with input from regional program staff.

### **IV. DISSEMINATION**

This report provides the results of this project. Copies will be available through Advance Resource Center and the Western Pennsylvania Resource Center or by contacting Lackawanna Junior College's Adult Literacy Program. The information will also be disseminated to the Pennsylvania Department of Education through this final report and copies of the presentations.

## V. GENERAL PROCEDURES

### The Problem

According to a Rural Services report which was disseminated March of 1994, there is a need to provide distance learning, especially to our rural and at risk population. Since a large portion of Pennsylvania is considered rural, the most effective and efficient way to provide staff development and possibly even curricula through distance education. According to Clark and Astuto, the educational reform movement has produced disappointing results. New technologies have spawned a revolution in long-distance education which had remained relatively unchanged from the 19th century. Other occupations have and are using distance technology in order to reduce costs. According to Fred Rayner, video conferencing can satisfy the modern training and communication needs of the police. Studies have shown that training through visual displays helps conduct meetings, makes announcements and provides staff training, and as a result reduces time and money.

There have been many positive programs as a result of distance education. According to Patricia Takemoto, distance learning can provide training of staff, update staff on rules, regulations and laws and provide a motivating experience for adult learners.

### GOALS AND OBJECTIVES

#### **Goal 1: To study distance learning technologies in Pennsylvania**

To review other 353 projects (i.e. Quigley 1992-93) in order to minimize duplication of effort. If necessary, conduct a survey of the programs throughout the state in order to ascertain their

current ability to accomplish distance learning. To ascertain from the Pennsylvania Department of Education a list of program names, contact people, address, phone number, and fax number.

*This goal was accomplished. The review of other 353 projects did occur with little benefit.*

*A computerized list of all known state programs was developed and computerized. A survey was sent to all literacy projects from across the state. There were over 306 records entered into the computer.*

**Goal 2: To compile the survey and ascertain the abilities of programs for distance learning and their staff development and curricula needs.**

To assess the provided data and to develop necessary processes in order to introduce distance learning technology. The survey will ask the programs to describe their current distance technologies and the technology in colleges/universities in their direct contact area. The survey will also ascertain program needs which can be addressed through distance technology.

Respondent name:

Program name:

Program needs:

Program ability for distance learning:

equipment;

facility;

staff development;

curricula

*This goal was accomplished. A survey was developed and mailed to over 306 programs with in the Commonwealth as noted in goal 1. See appendices for sample survey. There were one hundred response to the survey which is roughly a 33 percent response rate. Of the 100 respondents 97 indicated that they would like to be involved in distance education. This is a 97 percent approval rate. The difficulties are quite simple in retrospect. Distance Education*



*is spoken about in anonymous terms. Many think that distance education is a good idea, however, as many people have a different concept of the term "Distance Education".*

*There are specified needs for staff development of which the topics of Stress Management, Learning Styles, Time Management, and Math were to top requester items. There was little request for ESL or foreign language classes.*

**Goal 3: Develop Stress Management, Learning Styles Presentation, Time Management Presentation, and Math Curricula as the initial programs to be delivered via distance technology to four programs three times in the grant year.**

- a. **Develop Stress Management Presentation** - this presentation will involve the engagement of the remote adult learner. It will incorporate visual and auditory instructions and presentation.
- b. **Learning Styles Presentation** - this presentation will involve the engagement of the remote adult learner. It will incorporate visual and auditory instructions and presentation.
- c. **Time Management** - this presentation will involve the engagement of the remote adult learner. It will incorporate visual and auditory instructions and presentations.
- d. **Math Curricula** - a math module will be developed in order to teach students math and math functions.

These tasks were accomplished. See appendices for samples of materials. There were numerous sites and presentations time which were made available. The following scheduled presentations were announced: March 12, 1995 site Scranton, March 19, 1995 site Hazleton, March 26, 1995 site Honesdale, April 2, 1995 site Scranton, April 9, 1995 site Towanda, April 16, 1995 site Harrisburg, April 23, 1995 site Towanda.

There were very few individuals who attended the Distance Learning Staff Development. This was disappointing to the program personnel. There had been several interpretations of what distance education really means. For example, satellite uplinks and downlinks are viewed at distance education, some use computers with television monitors and special equipment as distance education, and finally, some use computer bulletin boards and fax machines as distance education. The descriptions are very different and thus the interchange and matrix of interaction between remote sites are also confusing.

### **SUMMATION AND RECOMMENDATIONS**

In all, this project yielded significant information. First, many programs from around the state would like to be involved in some type of distance education. Unfortunately, prior to this really occurring, there needs to be an understanding of distance education and the processes of bringing it to rural Pennsylvania. If we, as a discipline are sincere in distance education, then a conference on Distance Education must take place. There are also differences in terminology which has made it hard to schedule. There was also some technical difficulties in making the arrangements with other sites due to confusion of the delivery system.

# APPENDICES

## COPY OF THE INTERIM REPORT

Progress toward the Project Objectives:

1. A state wide survey will be conducted to determine the level of expertise and kind of equipment available for workshops.

a. This objective has been completed. The survey showed interest in this concept and in the topics chosen in the grant. Compatible equipment is located in only a couple of areas in the state and workshops are being scheduled there for March, April or May.

b. The survey showed the most interest in the following topics:

1. Stress Management
2. Time Management
3. Math
4. Total Quality Management (TQM)

2. Training modules will be developed to correspond to the chosen topics for staff development.

- a. All four modules are complete in paper form.
- b. Three modules have been entered into the computer for graphic presentation.
- c. The fourth is in process.
- d. All modules will include a workbook to be given out at each remote site during the training.

3. Four distance learning staff development workshops will be conducted at various locations throughout the state.

a. These workshops are currently being scheduled in conjunction with the Regional Staff Development Center in the area.

b. Dates are not confirmed yet, but will be in March, April or May.

Evaluation of Progress to Date:

All activities are on line. This project will be completed on time and in total compliance with the original proposal.

Objectives for the Next Half:

Schedule and conduct the training. Publish the workbooks. Complete the final report.

**\*SAMPLE LETTER SENT TO ALL PROGRAMS\***

Dear **\*PERSONALIZED TO EACH PROGRAM\***

(SAMPLE) Joyce Kerrick:

Lackawanna Junior College, East Stroudsburg University and Literacy Inc. has been awarded a 353 grant in order to assess staff development needs which can be provided by way of Long Distance Technology.

The plan of this 353 grant is to provide literacy groups such as yours with an ability to have staff developed, using little or no program money. The Distance Staff Development process will result in your not having to leave your area for one or several nights (which further increases costs). The survey has been developed in order to assess the need for Distance Staff Development and also will develop a process for this to be accomplished.

If you would like a copy of the results of this survey, please contact me at 717-265-3449. Please use the enclosed self addressed and stamped envelope to return the survey as soon as possible. Thank you in advance for your assistance with the completion of this survey.

Sincerely,

Jack Truschel

Joyce Kerrick

## Survey

The Department of Education through a 353 grant has funded a Distance Staff Development project. A part of the project is to survey the programs across the state in order to determine needs and abilities of literacy programs. Please complete the survey and mail it by using the return envelope. Please forward it no later than November 15, 1994.

Program Name: \_\_\_\_\_

Program Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

1. Do you have distance learning technology?  Yes  No

If yes, please explain: \_\_\_\_\_

If no, do you have access to a college/university that has the available technology?

Yes  No Specify: \_\_\_\_\_

2. Would you attend a staff development seminar by way of distance learning technology at no cost to you or your program?  Yes  No

3. There are five staff development programs that are currently scheduled.

Indicate if you would attend one or more if your schedule permitted:

Stress Management  Yes  No

Time Management  Yes  No

Learning Styles  Yes  No

Math  Yes  No

Foreign Language Skills  Yes  No

4. List the number of people you would have attend the seminar: \_\_\_\_\_

5. List the best location for holding a seminar: \_\_\_\_\_

6. List the closest college/university to your program: \_\_\_\_\_

7. Would you like to coordinate distance activities in your region/part of the state?  Yes  No

8. List other staff development needs which you would attend that can be addressed by distance learning technology.

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9. List other comments or concerns here.

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A copy of the results of this survey will be printed with a notation of all the participating programs. If you would like a copy of the results sent to you, please check the appropriate box.

Thank you for your support in completing this survey. Please return it as soon as possible, no later than November 15, 1994.



**ALERT LETTER REGARDING THE TIMES AND PLACES OF THE  
DISTANCE CLASSES**

**353 Special Demonstration Project  
Staff Development by Distance Learning**

>>FIRST NAME<< >>LAST NAME<<

>>AGENCY<<

>>ADDRESS<<

>>CITY<<, >>STATE<< >> ZIP<<

Dear >>FIRST NAME<< >>LAST NAME<<:

Are you experiencing **STRESS**, no more **TIME** in your work day!!! Or do you just have an interest in **TQM** or how do you teach that adult learner **MATH**. There will be a special tele conference on Thursday, June 1, 1995. The topics will be Stress, Time Management, Total Quality Management, and Teaching Math to Adults. The format for the training is as follows:

8:30-9:00 Registration

9:00-10:00 Total Quality Management

11:00-12:00 Stress Management

12:00-1:00 Lunch

1:00-2:00 Teaching Math to Adults

2:00-3:00 Time Management

In order to have as many people take part in this unique method of learning, there will be split sessions. The morning will be taught at the Hazleton Center of Lackawanna Junior College and the afternoon will be taught in Towanda Center of Lackawanna Junior College. The entire day will be taught in Scranton.

Each participant will receive lunch, a book on each subject taught and an audio tape on stress management (while supplies last). If you are interested in registering for the tele conference, please call 717-961-7834 as soon as possible. Space is limited to 20 people per site.

**This project is supported by a Section 353 grant from the Pennsylvania Department of Education. No endorsement by the PDE of USDOE should be assumed or implied.**

AGENCY	FIRST NAME	LAST NAME	CITY	TELEPHONE	ACTION
Abington Free Library	Marlyn	Cohen	Abington	215-885-5180	Y
SCI Albion Correction Ed.	Ken	Getschow	Albion	814-756-5778	Y
Lehigh Co Community College	Lauren	Giguere	Allentown	215-776-1998	Y
So Allegh Planning & Dev Commiss	James	Coley	Altoona	814-949-6500	Y
Altoona Public Library	Carole	Holes		814-946-1544	Y
Wissahocken S D	Frank	Mulhern	Ambler	215-628-1796	Y
Northampton Co Community College	Dr Manuel	Gonzalez	Bethlehem	215-861-5427	Y
Corr Ed DIV/SCI Cambridge Springs	Richard	Learn	Cambridge Springs	814-398-4611	Y
Capital A IU #15/ Cumberlnd Prison	Herbert	Motter	Carlisle	717-249-1620	Y
Carlisle Area S D	John	Foster		717-240-6872	Y
Franklin/Adams Empl & Trng Prog	David	Bumbaugh	Chambersburg	717-263-9413	Y
Clarion Co Literacy Council	Susan	Hays	Clarion	814-226-4626	Y
Corry Area S D	Richard	Read	Corry	814-665-8297	Y
Correction Ed Div Sci Cresson	James	Hudack	Cresson	814-886-8181	Y
Correction Ed Div/SCI Dallas	Harold	McAllister	Dallas	717-675-1101	Y
Bucks Co IU#22/Bucks Co Corr	Beverly	Carey	Doylestown	215-348-2940	Y
Volunteers in Teaching Alternatives	Frances	Stengel		215-345-8322	Y
Appalachian Youth SVC	Thomas	Prout	Ebensburg	814-472-7874	Y
Elwyn, Inc.	Mary	Peterson	Elwyn	215-891-2220	Y
Northern Tier Community Action	Judith	Blumle	Emporium	814-486-1161	Y

AGENCY	FIRST NAME	LAST NAME	CITY	TELEPHONE	ACTION
Erie Co. Dept. of Employment & Training	Tom	Schneider	Erie	814-453-4990	Y
Erie City School District	Daniel	Tempestini		814-871-6656	Y
Stairways Inc	Frank	Corapi		814-453-5806	Y
International Institute Of Erie	Rosanne	Tupek		814-452-3935	Y
Chester County Library	Frances	Insee	Exton	215-363-0884	Y
Chester CO IU 24	Carol	Brane		215-524-5107	Y
SE Delaware Co. School District	Jeanes	Asciutto	Folcroft	215-522-4310	Y
Ridley School District	Richard	Cunningham	Folsom	215-534-1900	Y
Correction Ed Div/SCI Greensburg	Bill	Steiner	Greensburg	412-837-4397	Y
PIC of Westmoreland/Fayette Inc	Gail	Campbell		412-836-2600	Y
Midwestern IU # IV	Angelo	Pezzuolo	Grove City	412-458-6700	Y
Harrisburg Housing Authority	Leroy	Robinson	Harrisburg	717-232-6781	R
Catholic Charities/Imm & Ref Serv	Beverly	Smith		717-232-0568	Y
Tri County OIC Inc	Jeffrey	Woodyard		717-238-7318	Y
Harrisburg Area Comm College	Gregory	Branch		717-780-2451	R
Susq Employment & Training Corp	James	MacDonald		717-236-7931	Y
Hatboro-Horsham School Dist	Wayne	Laubach	Horsham	215-672-5660	Y
Correction Ed Div/SCI Retreat	Kenneth	Malia	Hunlock Creek	717-735-8754	Y
Employment and Training, Inc	Barbara	Coveit	Huntington	814-643-3093	Y
Hiram G Andrews Center	Adele	Sternberg	Johnstown	814-255-8200	Y
La Comunidad Hispana	Sheila	Druley	Kennett Square	610-444-4545	Y

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AGENCY	FIRST NAME	LAST NAME	CITY	TELEPHONE	ACTION
Progressive Workshop	Karen	Waugaman	Kitanning	412-548-5664	Y
Royce & Royce	Dr Sherry	Royce	Lancaster	717-569-1663	N
Lancaster/Lebanon IU #13	John	Corse		717-293-7636	Y
Bridges	Jean	Henry	Lebanon	717-274-8329	Y
Central Susquehanna IU #16	Michael	Wilson	Lewisburg	717-523-1155	Y
Mifflin Co Library	Cathy	Forsythe	Lewistown		Y
Tuscarora IU Adult Edd Center	Carol	Molek		717-248-4942	Y
F.O.R. Learning Center	Amy	Chapple	Mckees Rocks	412-771-6460	Y
Cumberland Valley School District	Samuel	Gruber	Mechanicsburg	717-766-0217	Y
Delaware Co Community College	Susan	Rapp	Media	215-359-5040	Y
Mercer Co AVTS	Rachel	Martin	Mercer	412-662-3000	Y
Beaver Co Community College	Kim	Tonio	Monaca	412-775-8561	Y
Susquehanna Co Vol Lit Council	Louise	Lyons Nowy	Montrose	717-278-9027	Y
Lawrence Co Housing Authority	Marcia	Anderson	New Castle	412-654-1500	Y
New Castle Public Library	Marcia	Anderson		412-654-1500	Y
Lawrence Co Adult Literacy Program	Marcia	Anderson		412-654-1500	Y
Central PA Literacy Council	Jo Kablach	Sheppard	New Cumberland	717-774-8812	Y
Perry Co Literacy Council	Carol	Steiner	Newpoort	717-567-7323	Y
Bucks Co Community College	Karen	Dawkins	Newton	215-968-8006	Y
Pen Argyl Area S D	Neal	Wicoff	Pen Argyl	215-863-9093	Y



AGENCY	FIRST NAME	LAST NAME	CITY	TELEPHONE	ACTION
Temple University/CRHDE	Ruby	McLaughlin	Philadelphia	215-204-4531	Y
Asian Social Service Center	Armand	Taraborelli		215-334-2312	Y
Germantown Women's Ed Project	Peggy	McGuire		215-843-2148	Y
Inglis House	Paula	Silver		215-581-0734	Y
Council of Spanish Speaking Org	Richard	Bradley		215-627-3100	Y
Mayor's Commission on Literacy	Donna	Cooper		215-875-6602	Y
LaSalle University Urban Center	Millicent	Carvalho		215-951-1050	Y
Center for Literacy Inc	JoAnn	Weinberger		215-474-1235	N
Reader Development PProgram	Nancy	Laskowski			N
New World Association	Ella	Suplin		215-725-2706	Y
YMCA's of Philadelphia	Scott	Mentzer		215-473-6161	Y
Bldwell Training center, Inc.	Valerie	Njie	Pittsburgh	412-323-4000	Y
Goodwill Industries of Pgh	Patricia	Petrosky		412-481-9005	Y
Penn Hills S D	Dr. Bruce	Thomas		412-793-7000	Y
Renewal Inc	Jean	Misutka		412-456-1441	Y
Greater Pittsburgh Literacy Council	Donald	Block		412-661-7323	Y
Pittsburgh D/Connelly Skills Ctr	Dr Alfred	Fascetti		412-338-3700	Y
Renaissance Center for Psych Rehab	Joseph	Velardita		412-261-0875	Y
Reading Area Community College	Pieter	Miller	Reading	215-372-4721	Y
Jefferson County Dubois AVTS	Michael	Knobloch	Reynoldsville	814-653-8265	Y
Penncrest S D	Dale	Hrach	Saegertown	814-967-2675	Y
Marywood College	Meg	Cullen-Brown	Scranton	717-348-6237	Y
SCOLA	Diana	Statsman		717-346-6203	Y
Lackawanna Junior College	Joyce	Kerrick		717-961-7834	Y
Arlin IU 28	Susan	McFadden	Shelocta	412-463-5300	Y

AGENCY	FIRST NAME	LAST NAME	CITY	TELEPHONE	ACTION
Delaware Valley S D	Robert	Smith	Shohola	717-296-2778	Y
Seneca Highlands IU #9	Karl	Shuey	Smethport	814-887-5512	Y
Correction Ed Div/SCI S.c.merset	Rhoda	Winstead	Somerset	0	Y
Somerset Co AVTS	Thomas	Wojcicki		814-443-3651	Y
Mid State Literacy Council	Monica	Kindig	State College	814-238-1809	Y
State College Area S D	Margaret	Welliver		814-231-1061	Y
Bradford County Action Inc	Diane	Cantellops	Towanda	717-265-4434	Y
Northern Tier Reg Plng & Dev Comm	James	Gregory		717-265-9103	Y
Bradford Co Library	Sherry	Spencer	Troy	717-297-3375	Y
Tunkhannock Area S D	James	Steel	Tunkhannock	717-836-3111	Y
Washington/Greene Community Action	Barbara	Mooney	Waynesburg	412-852-2893	Y
Central Iu #10 Dev Ctr For Adults	Edith	Gordon	West Decatur	814-359-3069	Y
Lycoming Co Library System	Linda	Herr	Williamsport	717-326-0536	Y
Pennsylvania College of Technology	Susan	Clark-Teisher		717-327-4775	Y

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AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
A	Clifton	Williams	1217 Sansom St 7th Floor	Philadelphia	
Abington Free Library	Marlyn	Cohen	1030 Old York Rd	Abington	Y
Adult Lit Ctr of the Lehigh Valley	Dr Linda	McCrossan	530 Hamilton St	Allentown	
Adult Literacy Action	Nancy	Woods	Penn State Weaver Campus, 3 Wal-Mart Plaza / Rte. 18	Monaca	
Alle-Kiski Literacy Council, Inc.	Mary	Jendry	935 4th Avenue	New Kensington	
Allegh. Co. Dept. of Fed. Programs	Bernard	Powers	1 Smithfield st., 4th Floor	Pittsburgh	
Allegheny Co. Community College	Charlotte	Bennette	8701 Perry Highway	Pittsburgh	
Allegheny IU 3, Accesl	Alina	Hudson	1401 Forbes Avenue	PITTSBURGH	
Allentown S D	Richard	Parks	31 S Penn St PO Box 328	Allentown	
Altoona Area School District	Vincent	Nedimyer	1415 Sixth Ave	Altoona	
Altoona Public Library	Carole	Holes	1600 5th Ave	Altoona	Y
Appalachian Youth SVC	Thomas	Prout	115 S Marion Street Suite A	Ebensburg	Y
Ardmore Library	Peggy	Newman	108 Ardmore Ave	Ardmore	
Arin IU 28	Susan	McFadden	RT 422 E PO Box 175	Shelocta	Y
Armstrong School District	Sondra	Williams	37 Blue Spruce Road	Indiana	
Asian Social Service Center	Armand	Taraborelli	1719 Morris St	Philadelphia	Y
Bayard Taylor Library	Susan	Callo	PO Box 730 216 State ST	Kennett Square	



AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Beaver Co Area Labor Mgmt Comm	Bernadette	Mangie	400 9th Street Suite A	Conway	
Beaver Co Community College	Kim	Tonio	17 Douglas Lane	Monaca	Y
Beaver Valley IU/Beaver Co Prison	Edward	Perrott	225 Center Grange Rd	Aliquippa	
Bensalem School District	Martin	Morgis	4319 Hulmeville Road	Bensalem	
Bensalem Township High School	Dr Charles	Vortreflich	4319 Hulmeville Road	Bensalem	
Berks Co Employment & Training	Robert	Bukovsky	15 S 8TH Street 2nd Floor	Reading	
Bethel Park School District	Mary	Eisenreich	301 Church Road	Bethel Park	
Bethlehem Area Chamber of Commerce	Richard	Strain	459 Old York Rd	Bethlehem	
Bethlehem Area S D	Iris	Cintron	1516 Sycamore St	Bethlehem	
Bldwell Training center, Inc.	Valerie	Njie	1815 Metropolitan St.	Pittsburgh	Y
Bradford Area School Dist	David	Sapala	50 Congress St	Bradford	
Bradford Co AVTSN Tier Career Ctr	Walter	Becker	RD 1 Box 157A	Towanda	
Bradford Co Library	Sherry	Spencer	RD 3 Box 320	Troy	Y
Bradford County Action Inc	Diane	Cantellops	500 William Street	Towanda	Y
Bridges	Jean	Henry	500 Cedar Court	Lebanon	Y
Bristol Twp S D	Anthony	Scarpiello	800 Coas Ave	Bristol	
Bucks Co Community College	Karen	Dawkins	Swamp Rd	Newton	Y
Bucks Co IU#22/Bucks Co Corr	Beverly	Carey	705 Shady Retreat Rd	Doylestown	Y
Bucks Co Ofc of Employmt & Trng	John	Walsh	4259 Swamp Road Suite 303	Doylestown	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Bureau of Correctional Education	Donald	Bender	12th Floor, 333 Market Street	Harrisburg	
Butler Co Community College	Ana	Klady	College Dr Oak Hills Pob1203	Butler	
Cabrini College	Judith	Bradley	610 King of Prussia Road	Radnor	
Cambria County Literacy Council	Ruth	Toigo	2112 Menother Boulevard	Johnstown	
Capital A IU #15/ Cumberland Prison	Herbert	Motter	1101 Claremont Road Box 820	Carlisle	Y
Capital A IU#15 /Dauphin Co Prison	Jane	Hautzinger	501 Mail Road	Harrisburg	
Capital A IU#15 /Hbg State Hospital	Joan	Leopold	Pouch A	Harrisburg	
Carbon Co Volunteers For Literacy	Olivia	Herman	44 Susquehanna ST	Jim Thorpe	
Carbon County AVTS	Grace	Dunn	150 West 13th ST	Jim Thorpe	
Carlisle Area OIC					
Carlisle Area OIC, Inc	Claudia	Morton	30 S Hanover St	Carlisle	
Carlisle Area S D	John	Foster	623 West Penn St	Carlisle	Y
Carnegie Library of Pittsburgh	Maggie	Gibb	7101 Hamilton Avenue	Pittsburgh	
Catholic Charities/ Imm & Ref Serv	Beverly	Smith	900 N 17th Street	Harrisburg	Y
Catholic Social Services Bucks Co	Ursula	Egan	100 Levittown Parkway	Levittown	
Centennial S D	Robert	Jesberg	1415 Second Street Pike	Southampton	
Center for Alternative Learning	Dr Richard	Cooper	30 Summit Grove Ave	Bryn Mawr	
Center for Literacy Inc	JoAnn	Weinberger	636 S 48th St	Philadelphia	N

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Central Iu #10 Dev Ctr For Adults	Edith	Gordon	R R 1 Box 374	West Decatur	Y
Central PA Literacy Council	Jo Kablach	Sheppard	1120 Drexel Hills Blvd	New Cumberland	Y
Central Susquehanna IU #16	Michael	Wilson	PO Box 213	Lewisburg	Y
Chatham College	Emma	Lucas	Woodland Road	Pittsburgh	
Cheltenham Twp S D	Dr Thomas	Stretton	1000 Ashbourne Rd	Elkins	
Cheltenham Twp Library System	Hilma	Cooper	215 S Keswick Ave	Glenside	
Chester CO IU 24	Carol	Brane	150 James Hance Court	Exton	Y
Chester Co Ofc Of Employment & Trng	John	Abnet	601 West Town Road Suite 365	West Chester	
Chester County Library	Frances	Inslee	400 Exton Square Parkway	Exton	Y
Chester County OIC	Kathy	Kline	125 S Penn Street	West Chester	
Chester Housing Authority	Larry	Billops	1010 Madison St PO Box 380	Chester	
Chester Upland S D	Charles	Oakley	1720 Melrose Avenue	Chester	
Chestnut Ridge School District	Susan	Iagulli	RD 1	New Paris	
Chichester S D	Theodore	Elder	PO Box 2100	Boothwyn	
City of Pittsburgh SPOC Program	Melanie	Smith	City-County Building, Rm 431	Pittsburgh	Y
Clarion Co AVTS	R Leroy	Tabler	1976 Career Way	Shipperville	
Clarion Co Literacy Council	Susan	Hays	Ross Mem Lib Bldg Box 663	Clarion	Y
Com Women's Educational Project	Pat	Haff	2801 Frankford Ave	Philadelphia	
Corr Ed DIV/SCI Cambridge Springs	Richard	Learn	Fullerton Avenue	Cambridge Springs	Y

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Correction Ed Div /SCI Camp Hill	Betty	Spering	PO Box 200	Camp Hill	
Correction Ed Div /SCI Green	Dr Frank	Newton	1040 e Roy Furman Hwy	Waynesburg	
Correction Ed Div /SCI Waynesburg	Debbie	Higgins	RD 1 Box 67	Waynesburg	
Correction Ed Div Sci Cresson	James	Hudack	Drawer A Old Rt 22	Cresson	Y
Correction Ed Div Sci Rockview	James	Connor	Box A	Bellefonte	
Correction Ed Div/Coal Township	Pat	McCrone	One Kelly Dr	Shamokin	
Correction Ed Div/SCI Dallas	Harold	McAllister	Foilies Rd	Dallas	Y
Correction Ed Div/SCI Frackville	Edward	Dutton	1111 Altamont Blvd	Frackville	
Correction Ed Div/SCI Graterford	James	Symmons	PO Box 244	Graterford	
Correction Ed Div/SCI Greensburg	Bill	Steiner	RD 10	Greensburg	Y
Correction Ed Div/SCI Huntington	Rick	Bayer	Drawer R	Huntington	
Correction Ed Div/SCI Mahanoy	Judy	Kleiman	Box 491	Frackville	
Correction Ed Div/SCI Mercer	Catherine	Morelli	801 Butler Pike	Mercer	
Correction Ed Div/SCI Muncy	Sharon	Lane	PO Box 180	Muncy	
Correction Ed Div/SCI Retreat	Kenneth	Malia	RD 3 PO Box 500	Hunlock Creek	Y
Correction Ed Div/SCI Smithfield	Richard	Bayer	1120 Pike St	Huntington	
Correction Ed Div/SCI Somerset	Rhoda	Winstead	1590 Walters Mill Rd	Somerset	Y
Correction Ed Div/SCI Waymart	Marty	Walsh	PO Box 256	Waymart	



AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Correction Ed. Div. /Sci Pittsburgh	Robert	Lawson	P.O. Box 999901	Pittsburgh	
Corry Area S D	Richard	Read	800 E South Street	Corry	Y
Coudersport Area S D	David	Matzinger	802 Vine St	Coudersport	
Council of Spanish Speaking Org	Richard	Bradley	705-9 N Franklin St	Philadelphia	Y
Crawford Central S D	David	Bowser	RR 9 Box 102	Meadville	
Crawford County Literacy Council	Mary	Lindquist	966 1/2 Park Avenue	Meadville	
Cumberland Valley School District	Samuel	Gruber	6746 Carlisle Pike	Mechanicsburg	Y
Dauphin Co Tech School	James	Imler	6001 Locust Ln	Harrisburg	
Dauphin County Housing Authority	John	Ames	501 Mohn Street	Steelton	
Delaware Co Community College	Susan	Rapp	901 S Media Line Road	Media	Y
Delaware Co. Training and Employ. Program	Francis	Carey	321 W. State Street	Media	
Delaware County Literacy Council	Patricia	Gaul	225 East 24th Street	Chester	
Delaware County Prison	Enrico	DeAntoniis	PO Box 23A	Thornton	
Deleware Valley S D	Robert	Smith	RR 2 Box 2275	Shohola	Y
Dist 1199C Training/Upgrading Fund	Kelly	Robison	1319 Locust St	Philadelphia	
Dr. Gertrude A. Barber Center	Maureen	Barber-Carey	136 East Avenue	Erie	
Drexel University	Dr Janice	Biros	Drexel University	Philadelphia	
East Pennsboro Area High School	Samuel	Brinton	890 Valley Street	Enola	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Easton Area S D	Stephen	Viglione	811 northampton St	Easton	
Easton Housing Authority	Gary	Smith	221 S 4th St	Easton	
Elwyn, Inc.	Mary	Peterson	111 Elwyn Road	Elwyn	Y
Employment and Training, Inc	Barbara	Covert	723 Portland Ave	Huntington	Y
Erie City School District	Daniel	Tempestini	2931 Harvord Road	Erie	Y
Erie Co. Dept. of Employment & Training	Tom	Schneider	5 W. 10th Street - Ste 30	Erie	Y
Excellent Manual Ed & Trng Services	Brenda	Brewington	1520 N 28th St	Philadelphia	
F.O.R. Learning Center	Amy	Chapple	710 Thompson Avenue	McKees Rocks	Y
Farrell Area S D	Frank	Sincek	1600 Roemer Boulevard	Farrell	
Fayette Co CAC	James	Stark	137 N Beeson Ave	Uniontown	
Forbes Rd. East Avts	Marie	Bowers	607 Beatty Road	Monroeville	
Fox Chapel Area School District	Dr John	Gorsin	611 Field Club Road	Pittsburgh	
Franklin/Adams Empl & Trng Prog	David	Bumbaugh	181 Franklin Farm Lane	Chambersburg	Y
Fulton Co AVTS	Dayton	Tweedy	151 East Cherry Street	McConnellsburg	
Genesis II Educational Program	Joseph	Kelly	1214 N Broad St	Philadelphia	
Germantown Women's Ed Project	Peggy	McGuire	5020 Pulaski AVE	Philadelphia	Y
Goodwill Industries of Pgh	Patricia	Petrosky	2600 E. Carson Street	Pittsburgh	Y
Greater Erie CAC	Lynne	Burke	1006 W 10th Street	Erie	
Greater Johnstown AVTS	Michael	Pribish	445 Schoolhouse Road	Johnstown	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Greater Pittsburgh Literacy Council	Donald	Block	100 Sheridan Square 4th Floor	Pittsburgh	Y
Green Co Libraary System	Barbara	Rohrer	311 N West St	Waynesburg	
Greenville Literacy Council	Georgina	Rettinger	12 N Diamond St	Greenville	
Grove City Area Literacy Council	Jean	Helmfstine	211 S Broad St	Grove City	
Harrisburg Area Comm College	Gregory	Branch	Cne Hacc Drive	Harrisburg	R
Harrisburg Housing Authority	Leroy	Robinson	48 Chestnut Street	Harrisburg	R
Hatboro-Horsham School Dist	Wayne	Laubach	893 Horsham Rd	Horsham	Y
Hazleton Area School Dist	Rocco	Mussoline	1601 W 23rd St	Hazleton	
Hiram G Andrews Center	Adele	Sternberg	727 Goucher St	Johnstown	Y
Hispanic American Council	Erika	Freeman	554 East 10th Street	Erie	
Horizon House Rehabilitation Svcs	Barbara	Clark Braxton	119 S 31st St	Philadelphia	
Huntington Co Child/Adult Dev Corp	Jody	Huston	723 Portland Ave	Huntington	
IHM Literacy & GED Center	Sr Mary	Eckardt	425 W Lindley Ave	Philadelphia	
Indian Valley Opportunity Center	Richard	Detwiler	201 Main St	Souderton	
Indiana University of PA	Gary	Dean	206 Stouffer Hall	Indiana	
Indo-Chinese American Council	Dr Vuong	Thuy	4936 Old York Rd	Philadelphia	
Inglis House	Paula	Silver	2600 Belmont Ave	Philadelphia	Y
Inst for the study of Civic Values	Michael	Marsico	1218 Chestnut St Rm 702	Philadelphia	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Interim House	Katheryn	Wellbank	333 West Upsal St	Philadelphia	
International Institute Of Erie	Rosanne	Tupek	517 E 26th Street	Erie	Y
IU #1	Robert	Headlee	1 Intermediate Unit Dr	Coal Center	
J C C E D A , Inc	Nancy	Chelgren	105 Grace Way	Punxsutawney	
JCC's David G Neumann Senior Ctr	Susan	Adams	6600 Bustleton Ave	Philadelphia	
Jefferson County Dubois AVTS	Michael	Knobloch	100 Jeff Tech Dr	Reynoldsville	Y
Johsonburg Public Library	Betty	Decker	520 Market Street	Johnsonburg	
Juniata Valley School Dist	Terri	Gillam	RR 1 Box 318	Alexandria	
Kane Area School Dist	Don	Stewart	300 Hemlock Ave	Kane	
Korean Community Dev Services Ctr	Dr Jin Hi	Yu	6055 N 5th St	Philadelphia	
La Comunidad Hispana	Sheila	Druley	219 Birch Street	Kennett Square	Y
Lackawanna Junior College	Joyce	Kerrick	901 Prospect Ave	Scranton	Y
Lancaster Empl & Trng Agcy /Spoc	Donna	Voigi	PO Box 83480	Lancaster	
Lancaster/Lebanon IU #13	John	Corse	31 S Duke St	Lancaster	Y
LaSalle University Urban Center	Millicent	Carvalho	20th & Olney Ave	Philadelphia	Y
Lawrence Co Adult Literacy Program	Marcia	Anderson	207 E North St	New Castle	Y
Lawrence Co Housing Authority	Marcia	Anderson	207 E North St	New Castle	Y
Lebanon Co Housing Authority	Michael	Barrett	1012 Brock St	Lebanon	
Lehigh Co Community College	Lauren	Giguere	609 Hamilton St	Allentown	Y



AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Lehigh University	Jane	Ditmars	526 Brodhead Ave	Bethlehem	
Library for the Blind and Handicap	Jill	Gross	919 Walnut St	Philadelphia	
Lincoln IU #12	Henry	Wardrop	P.O. Box 70	New Oxford	
Lutheran Children & Family Services	Rich	Gitten	101 E Olney Ave 5th Floor	Philadelphia	
Lutheran Settlement House	Amelia	Belardo-Cox	1340 Frankford Ave	Philadelphia	
Luzern Co Community College	Patrick	Santacroce	PSC?IDEA 1333 S Prospect St	Nanticoke	
Luzern Co Human Resource Div Dept	Charles	Luce	53 Blackman St	Wilkes-Barre	
Luzern IU # 18	Frank	Nardone	368 Tioga Ave Box 1649	Kingston	
LVA Lancaster/Lebanon	Mary	Hohensee	PO Box 1306	Lancaster	
Lycoming Co Housing Authority	Daniel	Merk	PO Box 1328	Williamsport	
Lycoming Co Library System	Linda	Herr	19 E 4th St	Williamsport	Y
Lycoming Co Literacy Project	Linda	Herr		Williamsport	
Manito Inc	Robert	Whitmore	7564 Browns Mill Road	Chambersburg	
Mansfield University	Dr Celeste	Sexauer	110 Retan Center	Mansfield	
Marywood College	Meg	Cullen-Brown	2300 Adams Ave	Scranton	Y
Mayor's Commission on Literacy	Donna	Cooper	1500 Walnut St 18th Floor	Philadelphia	Y
McGuffey S D	Van	Wolfe	RD 1 Box216	Claysville	
Mercer Co AVIS	Clayton	Sheasley	776 Greenville Rd PO Box 152	Mercer	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Mercer Co AVTS	Rachel	Martin	776 Greenville Rd	Mercer	Y
Mercer Co Literacy Council	Georgina	Rettinger	12 N Diamond St	Greenville	
Metropolitan Career Center	Gloria	Singleton	162 W Chelton Ave 2nd Floor	Philadelphia	
Mid State Emplmt & Trng Consortium	Gary	Hoover	318 N Allegheny Street	Bellefonte	
Mid State Literacy Council	Monica	Kindig	204 Calder Way Suite 306	State College	Y
Midwestern IU # IV	Angelo	Pezzuolo	453 Maple St	Grove City	Y
Mifflin Co Library	Cathy	Forsythe	123 N Wayne St	Lewistown	Y
Millcreek Twp School District	Edward	Grzelak	3740 W 26th Street	Erie	
Mon Valley IOC Inc	Deborah	Skillings	400 Fourth St	North Charleroi	
Montco OIC Inc	Alan	Badger	Arch & E Basin Sts	Norristown	
Montgomery Co IU	Lawrence	Rees	1605 B W Main St	Erdenheim	
Montgomery Co Trning & Employ Program	Gerald	Birkelbach	Courthouse Airy & Swede Sts	Norristown	
N Central PA Reg Pling & Dev Commis	Ronald	Kuleck	651 Monumorenci Avenue	Ridway	
Nationalities Service Center	Michael	Blum	1300 Spruce St	Philadelphia	
Nazareth Area S D	Sherwood	Frederick	8 Center Square	Nazareth	
New Castle Public Library	Marcia	Anderson	207 E North St	New Castle	Y
New Educational Projects Inc	Tana	Reiff	PO Box 182	Lancaster	
New World Association	Ella	Suplin	2218 Glendale St	Philadelphia	Y
Norristown Area S D	C	Linsinbigler Jr	401 N Whitehall Rd	Norristown	



AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Norristown Literacy Council	Lena	Johnson	113 E Airy St	Norristown	
Northampton Co Community College	Dr Manuel	Gonzalez	3835 Green Pond Rd	Bethlehem	Y
Northeast IU #19	Ronald	Wilcha	North Vo Tech School Building	Mayfield	
Northern Tier Community Action	Judith	Blumle	PO Box 389	Emporium	Y
Northern Tier Reg Plng & Dev Comm	James	Gregory	507 Main St	Towanda	Y
Northumberland/Montour Trng Svcs	Bernard	Zatko	Mt View Complex	Shamokin	
Northwest Center Inc	Michael	Carr	27E Mt Airy Ave	Philadelphia	
Northwest PA Trning Partnership	Catherine	Mckissick	Highway 322 E PO Box 1	Franklin	
Northwest Tri County IU #5	Richard	Gacka	252 Waterford St	Edinboro	
Norwin S D	Dr Janet	Potoski	281 McMahon Dr	North Huntington	
Office of Computing Services	Janice	Biros	Drexel University	Philadelphia	
PA Director's Assoc for Comm Action	John	Wilson	222 Pine Street	Harrisburg	
PA School for the Deaf	Gail	Bober	100 W School House Ln	Philadelphia	
Partners for ESL Inc	Janice	Frick	1580 Carr Way	Warminster	
Peirce Junior College	Dr William	Moore	1420 Pine St	Philadelphia	
Pen Argyl Area S D	Neal	Wicoff	501 West Laurel Ave	Pen Argyl	Y
Penn Hills S D	Dr. Bruce	Thomas	309 Collins Drive	Pittsburgh	Y
Penncrest S D	Dale	Hrach	R D 1 Box 808	Saegertown	Y

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Pennsylvania College of Technology	Susan	Clark-Teisher	One College Ave	Williamsport	Y
Perry Co Literacy Council	Carol	Steiner	PO Box 37	Newpoort	Y
Personal Resources Network	Jean	Fleschute	2801 Frankford Ave	Philadelphia	
Philadelphia Community College	Delores	Weaver	1700 Spring Garden St	Philadelphia	
Philadelphia Free Library	Nancy	Laskowski	Logan Square	Philadelphia	
Philadelphia Housing Authority	Carol	Goertzel	801 Arch St 5th Floor	Philadelphia	
Philadelphia OIC Inc	Phyllis	Lawrence	1231 N Broad St	Philadelphia	
Philadelphia PIC	Patricia	Inving	17th & Cherry Sts Ste 501	Philadelphia	
Philadelphia School Dist	John	Sweeney	Broad & Green Sts Rm 111	Philadelphia	Y
Philadelphia Urban Partnership	William	Cicco	1127 S Broad St	Philadelphia	
PIC of Lehigh Valley Inc	Kathy	Zook	1601 Union Blvd	Allentown	
Pic Of Westmoreland/Fayette Inc	Edward	Lyons	531 S Main Street	Greensburg	
PIC of Westmoreland/Fayette Inc	Gail	Campbell	531 S Main St	Greensburg	Y
Pittsburgh D/Connelly Skills Ctr	Dr Alfred	Fascetti	1501 Bedford Avenue	Pittsburgh	Y
Pittsburgh Housing Authority	Brenda	Dobson	200 Ross Street 9th Floor	Pittsburgh	
Pocono Counties SDA SPOC Program	Joseph	Sebelin	44 Susquehanna Street	Jim Thorpe	
Pottstown YWCA Adult Literacy Ctr	Karen	Herring	315 King St	Pottstown	
Probe	Kathryn	Towns	589 S Front Street	Harrisburg	
Programs for Exceptional People	Caryl	Carthrew	1200 S Broad St	Philadelphia	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Progressive Workshop	Karen	Waugaman	301 Oak Avenue	Kitanning	Y
Project of Easton Inc	Nancy	Walters	330 Ferry St	Easton	
PSU University Park	Eunice	Askov	204 Calder Way Suite 209	University Park	
PSU-Beaver/Adult Literacy Action	Nancy	Woods	#3 Walmart Plaza Rt 18	Monaca	
Puerto Rican Organizing Committee	Lourdes	Tanon	301 S 13th Street	Harrisburg	
Quakertown Community s D	William	Kirk	600 Park Avenue	Quakertown	
Reader Development Program	Nancy	Laskowski	1901 Vine Street	Philadelphia	N
Reading Area Community College	Pieter	Miller	10 S Second St	Reading	Y
Reading Berks Literacy Council	Joan	Breisch	519 Elm Street	Reading	
Red Land Community Action	Irene	Paul	PO Box 23	Lewisberry	
Renaissance Center for Psych Rehab	Joseph	Velardita	910 Penn Avenue	Pittsburgh	Y
Renewal Inc	Jean	Misutka	121 Ninth Street	Pittsburgh	Y
Ridley School District	Richard	Cunningham	1001 Morton Ave.	Folsom	Y
Royce & Royce	Dr Sherry	Royce	1938 Crooked Oak Dr	Lancaster	N
S E Asian Association	Samien	Nol	4601 Market St	Philadelphia	
S E PA Rehabilitation Center	Mary	Peterson	111 Elwyn Road	Elwyn	
Schuykill IU #29	Lyn	Leto	P O Box 130	Marlin	
Schuykill Literacy Council	Wendy	Bridal	118 E Norwegian St	Pottsville	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
SCI Albion Correction Ed.	Ken	Getschow	10745 Route 18	Albion	Y
SCOLA	Diana	Statsman	1032 Greenridge St	Scranton	Y
Scranton School Dist	Robert	McHugh	425 N Washington Ave	Scranton	
Scranton/Lackawanna Human Dev Agcy	Fred	Lettieri	200 Adams Ave	Scranton	
SE Delaware Co. School District	James	Asciutto	Delmar Drive & Primos Avenue	Folcroft	Y
Seneca Highlands IU #9	Karl	Shuey	119 Mechanic St	Smethport	Y
So Allegh Planning & Dev Commiss	James	Coley	541 58th Street	Altoona	Y
Somerset Co AVTS	Thomas	Wojcicki	RD 5 VO Tech Rd	Somerset	Y
SPIN	Judy	Dotzman	10521 Drummond Rd	Philadelphia	
Spring-Ford School Dist	Lucille	Seltzer	199 Bechtel Rd	Collegeville	
St Vincent's Learning Lab	Evelyn	Rogers	109 E Price St	Philadelphia	
Stairways Inc	Frank	Corapi	138 East 26th Street	Erie	Y
State College Area S D	Margaret	Welliver	131 W Nittany Ave	State College	Y
Susq Employment & Training Corp	James	MacDonald	100 North Cameron Street	Harrisburg	Y
Susquehanna Co Literacy Coalition	Marilyn	Talboys	Box 277	Montrose	
Susquehanna Co Vol Lit Council	Louise	Lyons Now	Box 227	Montrose	Y
Temple University/CRHDE	Ruby	McLaughlin	Ritter Annex 9th Floor	Philadelphia	Y
Temple University/CSPCD	Shirley	Rines	1500 N Broad St	Philadelphia	
The Bridge	Star	Weiss	8400 Pine Rd	Philadelphia	

AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
The Lighthouse	Robert	Carr	152 W Lehigh Ave	Philadelphia	
Threshold Rehabilitation Services	Thomas	Haley	1000 Lancaster Ave	Reading	
Titusville Area S D	Kenneth	Winger	221 N Washington St	Titusville	
Totentine Community Center	William	Garraa	1025-33 Mifflin St	Philadelphia	
Tri County OIC Inc	Jeffrey	Woodyard	2107 N 6th Street	Harrisburg	Y
Tri-County Industry Council Inc	Ronald	Painter	121 Sunnyview Circle	Butler	
Trinity Area S D	Robert	Cimino	Park Ave	Washington	
Tunkhannock Area S D	James	Steel	200 Franklin Ave	Tunkhannock	Y
Tuscarora IU Adult Edd Center	Carol	Molek	MCIDC PLza/1 Belle AveBldg 58	Lewistown	Y
Tuscarora IU/YFC #3	Ronald	Bargiel	RD 1 Box 175	James Creek	
University of Pittsburgh	Rita	Bean	350 Thackery Hall	Pittsburgh	
Upper Bucks County AVTS	Joan	Malinowski	3115 Ridge Road	Perkasie	
Upper Dublin S D	Dr Virginia	Modia	530 Twining Rd	Dresher	
Venango Co Literacy Council	Maloy	Beach	1243 Liberty St Suite 314	Franklin	
Volunteer English Program	Carol	Klauss	Box 713	Exton	
Volunteers in Teaching Alternatives	Frances	Stengel	8 East Court Street	Doylestown	Y
Vounteers Of Am Of Central PA Inc	Steven	Jones	2112 Walnut ST	Harrisburg	
Warren Co S D	Laura	Kell	407 Market St	Warren	



AGENCY	FIRST NAME	LAST NAME	ADDRESS	CITY	ACTION
Washington/Green Job Training Ctr	David	Suski	Court House Square Room 320	Waynesburg	
Washington/Greene Community Action	Barbara	Mooney	22 W High St	Waynesburg	Y
Wayne Highland S D	Thomas	Jenkins	474 Grove St	Honesdale	
Wayne/Pike Adult Literacy Program	Jackie	Mohrmann	1406 N Main St	Honesdale	
Waynesboro Area SD	William	Witherow	P O Box 72	Waynesboro	
West Central Job Partnership	Ronald	Hagg	44 S Beaver St	New Castle	
West Chester Area S D	Robert	Fithian	829 Paoli Pike Avenue	West Chester	
Western PA School for the Deaf	Rosemary	Garrity	300 Swissvale Ave	Pittsburgh	
Westmoreland Co Housing Authority	Walter	Kaminski	RD 6 Box 223 s Greengate	Greensburg	
What's The Buzz	David	Fluke	Box 214	Troy	
Wilkinsburg S D	Ann	Desy	718 Wallace Avenue	Wilkinsburg	
William Penn School District	Salvatore	Salamone	Bell Ave. & Mac Dade BLVD	Yeadon	
Williamsport Area S D	Anthony	Delissi	201 W Third St	Williamsport	
Wissahcken S D	Frank	Mulhurn	601 Knight Rd	Ambler	Y
YMCA's of Philadelphia	Scott	Mentzer	1425 Arch St	Philadelphia	Y
York City S D	Pamela	Greene	101 W College Ave	York	
York Co AVTS	Sue	Hoffman	2179 S Queen St	Yprk	
York Co Employ & Training Program	Katherine	Fox	100 W Market St 3rd Floor	York	
York Co High School/Spring Grove S D	Dr Alan	Lindquist	200 W Jackson St	Spring Grove	



AGENCY FIRST NAME LAST NAME ADDRESS CITY ACTION

YWCA Adult Literacy Center Karen Herring 315 King St Pottstown

# You Want **Me** To Teach Math?

Joyce Packard Kerrick, M. Ed.  
Director, Adult Literacy Programs  
Lackawanna Junior College

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# You Want Me To Teach Math?

NOTES



Teaching math to adult learners can be an exciting and fulfilling challenge for the adult educator.

Helping the adult learner make sense out of concepts that may have baffled him/her for years can really make your day.

There are several critical points to remember when teaching math to adults.

- \* Keep the learning goal reasonable and attainable.
  
- \* Build success into every lesson.
  
- \* Keep class size small.
  
- \* Emphasize student participation and activity.

# You Want Me To Teach Math?

## EXERCISE 1

- \* Use instructional aids.
- \* Applications should relate to the adults' life experience.
- \* Take every opportunity to review, reinforce, and expand on previously learned topics.

## EXERCISE 2

- \* Vary activities from day to day--Be creative.
- \* Write out assignments and allow students time to write it down.

## NOTES

# You Want Me To Teach Math?

- \* Maintain eye contact and speak to each student each day.
- \* Provide opportunities to avoid computation. Mathematics is much more than number facts.

## EXERCISE 3

- \* Allow students to work at board if they wish to.
- \* Do some writing activities related to math topics.

## EXERCISE 4

NOTES

# You Want Me To Teach Math?

## METACOGNITION

Metacognition is thinking about thinking. Studies have shown that people who use metacognitive skills do better on intellectual activities. The adult educator needs to incorporate these skills into the daily lessons for the student.

**Self-monitoring skills** are an example of metacognitive activity. They include:

- ♦ Keeping one's place in a long sequence of operations.
- ♦ Knowing that a subgoal has been obtained.
- ♦ Detecting errors and recovering from those errors by a "quick fix" or by returning to the last known correct operation.

**Looking ahead skills** are another type of metacognitive activity. These include:

- ♦ Learning the structure of a sequence of operations.
- ♦ Identifying areas where errors are likely.
- ♦ Choosing a strategy to reduce error and to make recovery from error easier.
- ♦ Identifying different kinds of feedback that will be available and the usefulness of that feedback.

**Looking back skills** include:

- ♦ Detecting errors previously made.
- ♦ Keeping a history or journal of what has been done and thereby anticipating what comes next.
- ♦ Assessing the reasonableness of the answer obtained.

Ways to incorporate metacognitive skills into your teaching:

- ✕ Develop and discuss strategies and steps for attacking problems.
- ✕ Develop rules to remember and strategies for remembering formulas or concepts. (mnemonics)

# You Want Me To Teach Math?

Using language activities can help adult learners who have difficulty with math. Their language skills may be more developed and this can help eliminate the math anxiety that many adults feel. Journaling about math class can help to reduce stress and help them to feel more in control of the situation.

## EXERCISE 5

Ask your students for the names of good problem solvers that they know. Many times people do not associate problem solving with anything except math. We all solve problems every day; choosing menus, clothing, finding the right path through a detour, finding transportation to class, etc.

### Model metacognitive behavior to your students.

- \* Share your planning activities with them and ask for their input.
- \* Make errors but get "back on track."
- \* Admit if you don't know the answer but find a way to figure out how to solve the problem.
- \* Seek feedback and evaluation from your students.
- \* Have a stated value system for the class and use it in decision making.
- \* Self-disclose. Describe your strengths and weaknesses in problem solving.
- \* Understand and empathize by listening and describing feelings and ideas.
- \* Use silence. Allow the students time to formulate an answer. Don't jump right in to go on to the next question. This technique validates the thinking process.
- \* Use praise as a motivator, but don't overdo it. Too much praise becomes false. Praise the thinking activity and not just the answer.

# You Want Me To Teach Math?

- ✧ During the activity, ask the students to share their progress and what thought processes they are using.
- ✧ Ask about their perception of their problem solving behaviors. This gives the teacher a "cognitive map" to use for individualizing the instruction.
- ✧ After the activity, ask questions that evaluate the strategies used not whether the "right" answer was obtained.
- ✧ Decide if new strategies might be more helpful for future problems of a similar nature.
- ✧ Allow the student to generate their own questions or activities for similar kinds of problems.

make a game out of letting them find your mistakes when you do problems on the board.

## NOTES

## ELIMINATE THE ATTITUDE, "I CAN'T DO MATH."

Use words that describe thinking activity in your regular speech. For example:

- \* plan of action
- \* cooperation
- \* experiment
- \* restructure that idea
- \* clarify that thought
- \* that shows a lot of thought
- \* make a decision
- \* compare or predict
- \* analyze or speculate

Paraphrase the student response to check the accuracy of your understanding. Ask questions like:

- ? How do you know that answer is correct?
- ? How did you check your answer?
- ? Retrace your work for me.
- ? Does this answer make sense in the question?

## ALLOW THE STUDENT TO SELF-CORRECT.

This demonstrates to the student that they have the ability to find their own mistakes. It also takes some of the pressure off you to always be correct. Also




A DISTANCE STAFF  
DEVELOPMENT  
PRESENTATION ON  
STRESS MANAGEMENT

1995

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## STRESS SEMINAR

Introduction

Ask Questions!!!

USE THIS BOOKLET TO  
FACILITATE LEARNING

---

Let's begin by finding out what you  
already know about stress. Please raise  
your hand if you would call any of the  
following stressful.

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

NOTES

Stress affects us as a \_\_\_\_\_,  
so we are likely to experience symptoms  
of stress exhaustion not only in our  
bodies - but also in our  
\_\_\_\_\_, our \_\_\_\_\_,  
\_\_\_\_\_ with others and  
our \_\_\_\_\_.

NOTES

**Exercise 1**  
Stress Symptom Inventory

75

# Symptoms Checklist

Rate your stress-related symptoms below for the degree of discomfort they cause you, using this 10-point scale:

<i>Slight Discomfort</i>			<i>Moderate Discomfort</i>				<i>Extreme Discomfort</i>		
1	2	3	4	5	6	7	8	9	10

<i>Symptom</i>	<i>Degree of discomfort (1-10) now</i>
----------------	--

(Disregard those you don't experience)

**Anxiety in specific situations**

- Tests .....
- Deadlines .....
- Interviews .....
- Other .....

**Anxiety in personal relationships**

- Spouse .....
- Parents .....
- Children .....
- Other .....

- Anxiety, general—regardless of the situation or the people involved .....
- Depression .....
- Hopelessness .....
- Powerlessness .....
- Poor self esteem .....

<i>Symptom</i>	<i>Degree of discomfort (1-10) now</i>
Hostility .....	_____
Anger .....	_____
Irritability .....	_____
Resentment .....	_____
Phobias .....	_____
Fears .....	_____
Obsessions, unwanted thoughts .....	_____
Muscular tension .....	_____
High blood pressure .....	_____
Headaches .....	_____
Neckaches .....	_____
Backaches .....	_____
Indigestion .....	_____
Irritable bowel .....	_____
Ulcers .....	_____
Chronic constipation .....	_____
Chronic diarrhea .....	_____
Muscle spasms .....	_____
Tics .....	_____
Tremors .....	_____
Fatigue .....	_____
Insomnia .....	_____
Sleeping difficulties .....	_____
Obesity .....	_____
Physical weakness .....	_____
Job stress .....	_____
Other .....	_____

Important: Physical symptoms may have purely physiological causes. You should have a medical doctor eliminate the possibility of such physical problems before you proceed on the assumption that your symptoms are completely stress-related.

Now that you have identified your stress-related symptoms, it is time to choose the one or two that bother you the most, and to select the techniques that you will use to relieve them. Since everyone reacts differently to stress, it is hard to say which stress reduction techniques will be best for you. However, this chart will give you a general idea of what to try first, and where to go from there.

Chapter headings for each stress reduction method are across the top, and typical stress-related symptoms are listed down the side. You may have only one or several of these symptoms.

As you can see, more than one stress reduction technique is indicated as effective in treating most symptoms. The most effective techniques for a particular symptom are marked with a boldface X, while other helpful techniques for that same symptom are indicated by a lighter x.

Symptoms	Techniques						
	Progressive Relaxation	Breathing	Meditation	Imagination	Self Hypnosis	Autogenics	Thought Stopping
Anxiety in specific situations (tests, deadlines, interviews, etc.)	X	X	x	x	x		X
Anxiety in your personal relationships (spouse, parents, children, etc.)	X	X			x		
Anxiety, general (regardless of the situation or the people involved)	X	X	X	x		x	x
Depression, hopelessness, powerlessness, poor self esteem	x	x	X				X
Hostility, anger, irritability, resentment		X	x			x	
Phobias, fears	X						X
Obsessions, unwanted thoughts		x	X				X
Muscular tension	X	X		x	x	X	
High blood pressure	X		x			X	
Headaches, neckaches, backaches	X			X	X	x	
Indigestion, irritable bowel, ulcers, chronic constipation	X				X	X	
Muscle spasms, tics, tremors	X			x	x		
Fatigue, tired all the time	x	X			X	x	
Insomnia, sleeping difficulties	X				x	x	X
Obesity							
Physical Weakness							
Job Stress							

Refuting Irrational Ideas	Coping Skills Training	Assertiveness Training	Time Management	Job Stress Management	Brief Combination Techniques	Biofeedback	Nutrition	Exercise
x	X		x					
		X						
X	x					X		x
X		X					x	x
X						x	x	x
	X					x		
					x	X		X
					x	X	X	x
						X	x	X
					x	x	X	x
						X		x
			X				x	x
						x	x	x
							X	X
								X
		x	x	X	X			



**Exercise 1**

Look over the symptoms you checked and circle those that cause you most concern. Which ones are you worried about right now?

**NOTES**

**Exercise 1**

Next, review the entire list of symptoms again and put a star by any symptom that would be a real signal of distress to you.

**Exercise 1**

Now reflect for a moment on the patterns you see in your stress symptoms. Are most of your symptoms in one area?

**Exercise 1**

Write a dialog with one or more of the symptoms that were identified. Write it like a play.

**NOTES**

**Exercise 1**

Focus on 2 summary statements  
Right now I am concerned about

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
During this seminar I would like to work  
on  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**Exercise 1**

Divide into groups and discuss your symptoms that cause you the most concern, areas which you want to work on.

## WHAT IS STRESS?

STRESS is a word derived from \_\_\_\_\_  
and was used popularly in the 17th  
century to mean \_\_\_\_\_,  
\_\_\_\_\_, or \_\_\_\_\_.

In general STRESS is said to occur  
when a person perceives that he / she is  
unable to \_\_\_\_\_ with the demands  
made upon him / her.

STRESS is the body's nonspecific  
response to any demand placed on it,  
whether or not that demand is pleasant.  
(Selye, 1978).

### Exercise 2

How much STRESS is in your life?  
(Life Change Test)

## NOTES

## HOW MUCH STRESS IS IN YOUR LIFE?

Score yourself on this Life Change Test.\* Check only those events which you have experienced within the past year.

<u>ITEM NO.</u>	<u>ITEM VALUE</u>	<u>HAPPENED</u>	<u>YOUR SCORE</u>	<u>LIFE EVENT</u>
1	100	_____	_____	Spouse's death
2	73	_____	_____	Divorce
3	65	_____	_____	Marital separation
4	63	_____	_____	Jail term
5	63	_____	_____	Death of close family
6	53	_____	_____	Personal injury/illness
7	50	_____	_____	Marriage
8	47	_____	_____	Fired at work
9	45	_____	_____	Marital reconciliation
10	45	_____	_____	Retirement
11	44	_____	_____	Change in family health
12	40	_____	_____	Pregnancy
13	39	_____	_____	Sex difficulties
14	39	_____	_____	Addition to family
15	39	_____	_____	Business readjustment
16	38	_____	_____	Financial state changes
17	37	_____	_____	Death of close friend
18	36	_____	_____	Change jobs
19	35	_____	_____	Arguments w/ spouse
20	31	_____	_____	Mortgage over \$10,000
21	31	_____	_____	Foreclosure of mortgage
22	29	_____	_____	Job duties change
23	29	_____	_____	Child leaves home
24	29	_____	_____	Trouble w/ in-laws
25	28	_____	_____	Outstanding personal achievement
26	26	_____	_____	Wife begins/stops work
27	26	_____	_____	Begin/end school
28	25	_____	_____	Living conditions change
29	24	_____	_____	Personal habits revised
30	23	_____	_____	Trouble w/boss
31	20	_____	_____	Work conditions change
32	20	_____	_____	Change in residence
33	20	_____	_____	Change in schools
34	19	_____	_____	Change in recreation
35	19	_____	_____	Church activities change
36	18	_____	_____	Social activities change
37	17	_____	_____	Mortgage/loan less than \$10,000
38	16	_____	_____	Sleeping habits change

39	15	_____	_____	Increase/decrease in family get-togethers
40	15	_____	_____	Eating habits change
41	13	_____	_____	Vacation
42	12	_____	_____	Christmas
43	11	_____	_____	Minor violations with the law
TOTAL _____				

The more changes you have, the more likely you will suffer a decline in health. Of those who scored over 300 "life change units," 80% have a chance of a serious health change. With 150-299 life change units, about 50% get sick in the near future. With less than 150 life change units, about 30% get sick in the near future.

\*Thomas H. Holmes and Richard H. Rahe, "The Social Readjustment Rating Scale" Journal of Psychosomatic Research 11 (1967): 213-18, reprinted with permission.

Today we see **STRESS** as



STRESS IS: A RECURRING  
\_\_\_\_\_ RESULTING IN THE  
DAILY WEAR AND TEAR ON THE  
BODY THAT LEADS TO  
\_\_\_\_\_ AND \_\_\_\_\_.

Hans Selye (1946) was one of the first to try to explain the process of stress with his "General Adaptation Syndrome" theory.

Hans Selye's, "General Adaptation Syndrome" is a three stage process:

- ①
- ②
- ③

NOTES

## NOTES

### Alarm:

alerting the organism and mobilization of resources for coping with the stress. (Emotional arousal, increased tension, heightened determined efforts at self control).

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Alarms physiological reactions include:

- ⇒ change in galvanic skin response
- ⇒ increase in blood pressure
- ⇒ muscle tension
- ⇒ increased heart rate

**Resistance Stage** is characterized by a set of \_\_\_\_\_ that stimulate tissue defense.

If stress continues, the individual is often able to find some means for dealing with it and thus resist psychological disintegration.

**Resistance** may be achieved temporarily by concerted task-oriented coping measures: the use of self defense mechanisms may be intensified.

During this stage the individual tends to become \_\_\_\_\_ and \_\_\_\_\_ to previously developed defenses rather than try to re-evaluate the stress situation and work out a more adaptive coping pattern.

During our lifetime we go through the first two stages **many** times.

**Exhaustion Stage** will occur if stress continues to bombard the organism despite these responses.

In the face of excessive stress, the individuals adaptive resources are depleted and the coping patterns begin to fail.

There is a \_\_\_\_\_ of integration and an introduction of exaggerated and inappropriate defense measures. This is characterized as psychological disorganization.

## NOTES

8'



Long term stress with prolonged and excessive \_\_\_\_\_ arousal can lead to physical and emotional breakdown and disease.

Psychosomatic diseases linked to STRESS include:

- ⇒ high blood pressure
- ⇒ peptic ulcer
- ⇒ heart disease - hypo / hyper tension
- ⇒ insomnia
- ⇒ sexual dysfunction
- ⇒ Respiratory system - colds, flu
- ⇒ rashes
- ⇒ colitis

## NOTES

What are some ways to control Stress

STRESS

SUPPORT MATERIALS

# Learning to Manage Stress

*Develop an awareness of this potentially dangerous threat  
and take steps to live a simpler and saner life!*

By Susan Smith Jones, Ph.D.

**A**s I travel the world lecturing on health, fitness, and human potential, I continually hear comments such as, "Life is so complicated and busy, so crowded and hurried" ... "I just can't seem to keep up with the pace."

Do you ever feel that way?

I want you to know that it is possible to live in the midst of a highly developed, technological society and still keep an easy, relaxed pace while doing excellent work. It is our choice. Contrary to popular belief, we are not mere victims of our environment, and we don't have to maintain the same pace as everyone else.

It has been my experience that as we push faster and harder without keeping a balance, we grow more and more insensitive to our own needs and the needs of those around us. I see this as a sickness—hurry sickness.

Simplify your life. Slow down. Take time to smell the flowers, talk to the animals, sing with the birds, be with your family and friends, and laugh with the children. It was Henry David Thoreau who said, "I have no time to be in a hurry."

Improving the quality of our diet or exercise, or our job or where we live, will be of little value unless we also experience harmony with our environment. That means "knowing ourselves" and finding peace in our own company. Make time each day to relax and be alone. It is by spending time alone, breathing deeply, and quieting our thoughts that we can do the most for our health, harmony, and peace of mind. As we spend time in what I like to call "quietude," we realize we are never alone.

This experience can teach us to trust ourselves more. Too often we look outside ourselves for our worth

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*You can choose  
more vibrant  
health.*

*You have  
the capacity  
to change  
and to grow.*

*Choosing to be  
healthy involves  
a conscious  
decision to support  
your well-being!*

---

and forget that nothing will ever be enough until *we* are enough. Thoreau said, "It is a great relief when for a few moments in the day we can retire to our chamber to be completely true to ourselves. It leavens the rest of our hours."

## Your immune system

There is a new, exciting field of science called psychoneuroimmunology. Research in this field indicates that the immune system, brain, and other vital body systems communicate, connect with, and influence one another.

Today, a number of scientists believe that many immune system problems are related to stress, and that there is an intimate connection

between our thoughts, feelings, and expectations, and our ability to maintain or recover health. Since we cannot totally avoid stress in this world, it is important that we develop strong and effective coping mechanisms.

One beneficial step is to make time for solitude and enjoyable activities that include a great deal of laughter. Laughing at ourselves and the incongruities of everyday situations is the best way to quell stress and reduce tension.

## Positive thinking

What are your thoughts about well-being? Do you think only healthy thoughts, or do you focus on those things you don't like about yourself? Do you expect to get sick each winter because it's the "flu season," or do you let go of all thoughts of sickness and disease? So much has to do with what you expect.

The body moves along the path of its expectations. An interesting experiment was conducted with people who were about to have surgery. Some of the people did everything they could to avoid it. Others, who had the same condition, regarded the surgery as a blessing and were grateful that it was able to correct their problem. These people had a much better post-operative experience. And this outcome has been documented numerous times.

There is a group of cancer survivors in Santa Monica, California, who have lived longer than physicians had predicted. Why? They didn't deny the diagnosis, but they did not accept their doctors' gloomy predictions. These courageous individuals have a blazing determination. Their expectations are not negative, and that has made a difference.

## Choose to be healthy

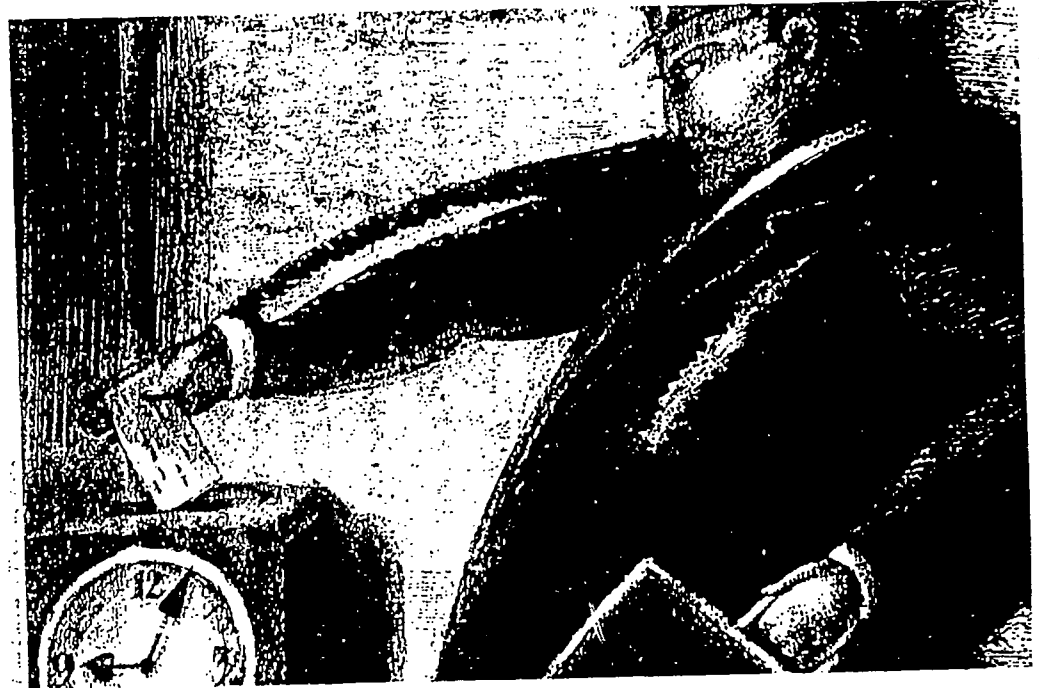
No matter how healthy you are at this moment, you can choose more vibrant health. By virtue of our humanity, we have the capacity to choose, to change, and to grow. Choosing to be healthy involves a conscious decision to support your well-being. It also involves taking responsibility for yourself and not blaming how you feel or look on family, friends, doctors, environment, or circumstances.

### A shining example

Two years ago, I met the president of one of the top corporations in America. He was impatient, aggressive, wired, and unaware of how to make choices to support his well-being. He routinely put in six or seven pressure-packed, 11-hour days a week at the office or traveling. He always had to be first, always had to be right, and had to be busy with work to feel a sense of self-worth.

This 40-year-old man enjoyed rich foods and indulged in vast quantities of cheese, ice cream, steak, butter, processed foods, and sweet desserts. His idea of exercise was shifting gears in his expensive sports car. He thought alcohol and his hot tub were all he needed to relax.

When he began to sink into depres-



sion, his wife encouraged him to get a checkup, his first in more than five years. He was shocked to discover he had high blood pressure and hardening of the arteries. He was told that if he didn't make some lifestyle changes immediately, he was headed for a heart attack within six months.

I had never before met anyone so

stressed-out and unhealthy. But I outlined some steps for him to take, and he chose to make a real commitment to health. His dedication has been a great inspiration to me. Today, he and his family are a picture of health. ¶

Susan Smith Jones, Ph.D., is the author of *Choose to Be Healthy: Choose to Live Peacefully*, and her new book, *Choose to Live Fully*, all available from ANHS.

## Tips to enhance the quality of your life!

The following guidelines can truly make a difference in your life if you make them a part of your wellness lifestyle:

1. Keep fit; get plenty of exercise, sleep, nutritious food, and water, avoid dependence on caffeine, nicotine, alcohol, and drugs.

2. Learn to elicit a relaxation response so that your stress level is under your control. This means becoming deeply relaxed in mind and body. Learn deep relaxation techniques. Don't kid yourself. A few drinks or a weekly dip in the hot tub is just not the same as bringing about thorough relaxation by

using your own mind and will.

3. Watch out for stress associated with prolonged feelings of anger, depression, helplessness, and hopelessness. Negative emotions trigger the release of substances that can suppress immune function. Solve your problems in a way that lets you clear up your negative feelings as thoroughly and quickly as possible.

4. Be aware of your thoughts. Your thoughts greatly affect your experiences. Each of us has the freedom to accept and embrace whatever thoughts we choose. You possess within the silence of your being the ability to think, create, and become

whatever you want to become. So take your thoughts off the negative and think only about those things that you want to be a part of your life. Visualize your goals daily.

5. Develop a sense of humor. A healthy degree of emotional detachment and hearty laughter every day can have a very beneficial effect on your health. Don't take life so seriously.

6. Find some time each day just for yourself, to be alone and enjoy the peace of your own company.

7. Simplify your life. Simplification is to your life what a good rejuvenation program is to your body.

Live Longer, Better, Wiser

Worried about high blood pressure, heart disease, infertility...or even cancer?

# Relax—It Can Be Good For What Ails You

BY EARL UBELL

**R**ELAXATION, SCIENTISTS are finding, does much more than reduce stress. It also can relieve pain and help to control sickness. More and more is being learned about how tension—emotional stress—is bad for both your mind and body. Doctors are now prescribing relaxation training as part of the treatment not merely for minor ailments but also for infertility, heart disease and, sometimes, even cancer.

The concept of relaxation as good medicine, once totally dismissed by scientists, is accepted now, thanks largely to Dr. Herbert Benson, an associate professor at Harvard Medical School and the founder of the Mind/Body Medical Institute at New England Deaconess Hospital in Boston.

When the mind is stressed—by anxiety or anger, for example—the body responds. There are rises in the metabolism, heart rate, blood pressure, breathing and muscle tension. These reactions date to prehistoric man, who, if faced with danger, chose either to fight or to take flight. Hormones pour out to ready you for action. One hormone, epinephrine, speeds up the heart. But if your heart is weak, and the small arteries feeding blood to it are blocked with fats, epinephrine might overload your heart. It is in just such a case that relaxing could help save your life.

Through effort and training, Dr. Benson says, you can learn how to quiet yourself down

and summon at will the healing changes in body chemistry called "the relaxation response." For 20 years, Benson tested and ultimately proved the healthful effects of relaxation. He recorded changes in the bodies of his subjects and in their diseases after treatments combining medication, relaxation therapy, nutrition, exercise and stress-management. He compared them with control groups of similarly ill but untreated subjects.

*The Wellness Book*, by Dr. Benson and Eileen M. Stuart, R.N., tells how to elicit the relaxation response and gives details on many routes to reach it.

Dr. Redford Williams, professor of psychology and director of the Behavioral Medical Research Center at Duke University in Durham, N.C., terms relaxation "a critical element" in stopping or slowing disease when combined with a variety of psychological methods. "Studies published recently have shown these interventions improve prognoses in cancer and heart disease," says Dr.

Williams. Today, data support relaxation as being able to, among other things:

- Cure some cases of infertility.
- Lower high blood pressure.
- Help control glucose and insulin levels in those with diabetes.
- Slow the progress of heart disease.

Amazingly, relaxation has been proved to cure cases of infertility that have no obvious biological cause. (Good news for those enduring costly, sometimes painful infertility tests and treatments.)

Dr. Reed C. Moskowitz of New York City and his wife, Debra, had taken every test known to medical infertility experts. Nothing worked. At New York University Medical Center, he is director of Stress Disorders Medical Services and a clinical assistant professor of psychiatry. Debra Moskowitz is an attorney. In 1989, she complained of stress

at work. Dr. Moskowitz knew of a study led by Dr. Benson. In it, childless couples with no known physical cause for infertility showed good results after relaxation therapy: 18 pregnancies out of 54—a success rate of 33%, compared with 25% at fertility clinics. Dr. Moskowitz reasoned that stress-induced hormones were pouring into his wife's system, perhaps impeding conception. He'd helped patients overcome stress; now he'd help his wife.

They practiced breathing, muscle relaxation, visualizing a healthy, growing baby. In days, Debra Moskowitz mastered the relaxation technique. In months, she was pregnant. On Oct. 10, 1990, their daughter, Marissa, was born; their son, Craig, arrived on Jan. 25, 1995. Relaxation helped Don Wood too. "I had borderline high blood pressure but didn't want to take drugs," says Wood, 48, a computer technician at New England Deaconess Hospital. He also had tension headaches and neck pains. In early 1992, Wood entered a cardiac-risk-reduction program at Deaconess emphasizing diet, exercise and relaxation. His pain eased, and he had 75% fewer headaches. "I was amazed," says Wood.

The American Diabetes Association reports that research shows relaxing can help some diabetics to control blood-glucose levels, which can be harmed by stress. Stress also can raise the need for insulin while blocking its release.

"It was a year ago that I had a heart attack and died."

"It was a miracle that my heart started beating again.

"My doctor says a regimen of aspirin, along with the right diet and exercise, could reduce my risk of another heart attack by up to 50%.

"Of course I'm taking pure BAYER Aspirin now. Because mine isn't the only heart I have to think about."

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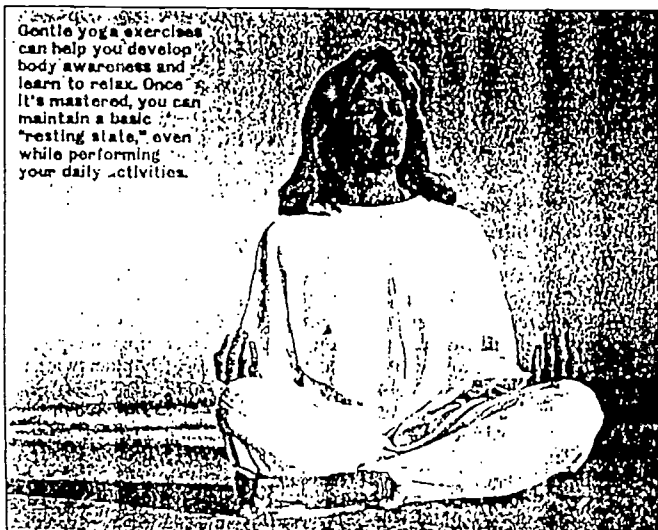
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American Heart Association  
1100 19th Street, N.W.  
Washington, D.C. 20036  
202-638-2000



Gentle yoga exercises can help you develop body awareness and learn to relax. Once it's mastered, you can maintain a basic "resting state," even while performing your daily activities.



With training and practice, you can learn how to quiet yourself down and summon at will "the relaxation response"—and, with it, healing changes in your body chemistry.

There are several ways to induce the relaxation response. I learned how with a method introduced back in the '20s by Dr. Edmund Jacobson of the University of Chicago. He taught patients to unwind by progressively relaxing muscle groups, from their soles to their scalps. He would say: "Curl your toes. Hold them in that position. Feel the tension in the muscles of your feet [soles, toes, arches, heels, ankles]. Now, slowly release the muscles; let the tension drain away. Think of something pleasant."

Later, listening to his tape-recorded instructions, I soon felt the relaxation response of Poatine above my bed.

Here are some other tools to help you induce a relaxation response:

- **Biofeedback.** By recording biological changes in your pulse rates, temperature, muscle tension and sweat, machines can show your body's feedback. A TV monitor shows your heart speed up or slow down in response to

your thoughts, to see which relax you.

- **Hypnosis.** A hypnotist might put you into a quiet state. By self-hypnosis, some can learn to do this for themselves.

- **Imagery.** Imagining quiet scenes often seems to trigger the relaxation response. Some researchers contend that imagery can help patients to slow their cancer, but doubt persists.

- **Breathing.** Most of us don't breathe deeply enough. Shallow breathing will lead to shortness of breath and chest tightness—symptoms of stress. Focus on deep breathing for relaxation.

The World Health Organization has approved the relaxation response as part of the treatment for high blood-pressure. Combined with nutrition and exercise, doctors see it easing depression, painful AIDS symptoms, headaches, back pain and other ills.

Dr. Williams of Duke, in his study of the impact of hostile feelings on the heart, found that angry people suffered more heart disease than calm ones. "These studies of relaxation and other stress-management techniques," he says, "suggest stress management is ready for more extensive clinical trials."

The wide range of research on relaxation—and the role the mind plays in healing the body—offers hope for controlling an ever-widening range of diseases.

For more information, write: *Clinical Programs, Mind/Body Medical Institute, Deaconess Hospital, 1 Deaconess Road, Dept. P, Boston, Mass. 02215.*

PARADE Health Editor Earl Ubell is an author, essayist and lecturer. He also is a medical news reporter for WCBS-TV in New York City.

THE  
COMPLETE  
5-HOUR EPIC  
ON ONE  
VIDEO

## A TOWN LIKE ALICE

Bryan Brown from "Breaker Morant", "FX", and "Thornbirds" stars in this award-winning Masterpiece Theatre presentation. Based on Nevil Shute's 1950 international best-selling novel, A TOWN LIKE ALICE is a tale of enduring love between a headstrong Englishwoman (Helen Morse) and an Australian rancher who together survive the living nightmare of a Japanese concentration camp to start a new life that is every bit as demanding as their war time trials. Set against the brutal chaos of World War II, this taut, spellbinding story spans three continents and two decades as it takes you on an epic journey from the steamy jungles of Malaya to the arid desolation of the Australian outback.



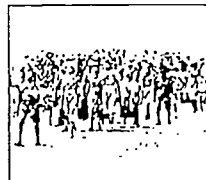
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# HEALTH TRACK

REDUCING **stress**

IN THE NINETIES

From the editors  
The Physician and  
Sportsmedicine,  
a McGraw-Hill  
publication

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# HEALTH TRACK

## Stress in the Nineties

MANAGE YOUR HEALTH  
LIKE YOU MANAGE YOUR BUSINESS

If ever there was a condition that has linked human beings over the millennia, it's stress. Stress is the saber-toothed tiger at your heels, the auditor at your elbow. It's the future of hundreds of employees riding on the decision you make tonight. It's discovering after an all-night flight for the sales call of your life that you've packed a tuxedo and no shirt.

Stress is so ubiquitous, so much a part of life that few of us stop to examine its causes and effects. And face it: Stress is also fun. More than necessity, stress is the mother of invention, the catalyst of creativity, the



reason many of us leap out of bed in the morning. What would life be like without deadlines? How many creative, progressive ideas, even industries, have been conceived in crisis and born in urgency? We love this constant reaching beyond our grasp, and many of us thrive on it.

But stress also has a dark side that we're too often familiar with: unremitting demands, moving targets, hostile colleagues, political intrigue, lack of control or support, responsibility beyond our capabilities, plain failure. Too much of

this kind of stress, particularly in the absence of effective coping strategies, and there goes our health.

Sensitivity to stress is as individual as we are. The lawyer working toward her day in court may feel more excitement than stress as she puts in night after night preparing her case. But the department manager, responsible for a project he doesn't believe in under direction he doesn't respect, may find himself sick from the stress — though he hasn't logged an extra minute.

Psychological stress can lead to biochemical alterations and physiological responses that are potential catalysts of disease. Responses range from tension headaches to debilitating migraines; diseases include cardiovascular disease, suppressed immunity, gastrointestinal disorders, aggravation of asthma — even thyroid dysfunction. Perhaps as a comment on the times, a field of research is emerging called psychoneuroimmunology: the study of the biology of stress and the medical conditions linked with it.

John E. Sutherland, MD, a clinical professor of family medicine at The University of Iowa in Iowa City, compares the relationship between stress and life to the E string on a violin. If the string is too loose, the tone is flat. If the string is too tight, it breaks. The tone is perfect when the string is balanced. (It's worth noting that the string doesn't break right away, and may not even break after tightening it to the limit several times. Like people, the string breaks when the tension is unrelenting.) The quest to achieve balance in our lives is its own growth industry, responsible for a plethora of night classes, shelf after shelf of self-help books, tapes,

magazine articles, clinical psychiatric specialization, spas, health clubs, and resorts. If balance were easy, the market for much of this would crash.

But the most effective and dependable means for coping with stress is perhaps the most obvious: boosting health — the basic components of which are exercise and good nutrition. Exercise builds strength and stamina at the

same time that it distracts and relaxes. Over time it lowers resting heart rates, reduces body fat, and improves sleep. Good nutrition keeps weight down, cells in good repair, and immunity strong. If anything so potent could be bottled and sold, the market for this product would soar.

*The most effective and dependable means for coping with stress is perhaps the most obvious: boosting health*

## Beware The Early Warning Belly

**I**f stress is wrecking your heart, think what it's doing to the rest of you. When stress keeps you from exercising and diverts attention from your diet, just checking the shine on your shoes can resemble a swan dive from great height. Middle-aged men take note: Mounting evidence suggests that you're especially susceptible to such midbody obesity and the diseases increasingly linked with it.

C. Wayne Callaway, MD, describes a typical man whose health is ticking toward collapse: He's 45 years old, 5 feet 9 inches tall, weighs 180 pounds (20 pounds more than he did at age 25), and doesn't exercise. He doesn't look overweight but most of his weight gain is at his waist. In fact, his waist measures the same as his hips.

The man has subtle blood lipid abnormalities, his serum triglycerides are slightly elevated, and his high-density lipoprotein (HDL) cholesterol levels are low. These factors can indicate an underlying resistance to insulin that predates the actual development of diabetes by a decade or more, according to Callaway, an endocrinologist and medical professor at George Washington University in Washington, DC.

If the man doesn't increase his activity and reduce his abdominal fat as he moves into his 50s — particularly if he has a family history of diabetes — he can expect the triglyceride levels to continue up, the HDL levels to continue down. And even if he isn't "obese," he'll be a top candidate for developing heart disease.

The cluster of disorders linked to abdominal obesity — glucose intolerance, hypertriglyceridemia, hypertension, and non-insulin-dependent diabetes — has earned the forbidding name Syndrome X. Its threat is drawing increasing attention among researchers, and many physicians now consider measuring patients' waist-to-hip ratios as essential to an office visit as checking their weight.

Try it: Divide your waist measurement by your hip measurement. (Your waist is the smallest measurement between hips and chest; your hips are the largest measurement between waist and legs. Difficulty finding them may supply the answer you seek.)

The American Heart Association recommends that your ratio not exceed 1.0 (for men) and .8 (for women). The U.S. departments of agriculture and health and human services are more restrictive for men: Their Dietary Guidelines Advisory Committee recommends that a man's waist-to-hip ratio not exceed .95. If your ratio puts you on the brink of obesity, you have one more reason to get exercise into your life.

## STOP STRESSING YOUR HEART

**Y**ou've run your division your way for years. You're good at your job, challenged by the work, and your people respect you. Your division changes hands and suddenly you find yourself second-guessed, ridiculed, and dismissed by a new boss. You're spending more and more of your time justifying what you do — staying late, sleeping poorly. Your family's forgotten what you look like and your division is suffering. You wonder each day whether it's your last on the job.

This is stress, and your brain — the interpreter of the stress and the governor of your body's response — is sending Maydays through your adrenal cortex to your pituitary system to release catecholamines (adrenaline) and cortisol, which increase your heart rate and blood pressure. If a bear were chasing you this would be great: The increase in cortisol would bring protein and fats into your fuel line, and the catecholamines would convert glycogen into blood glucose—the chief source of energy for all organisms. With your heart working harder these nutrients would speed to your working muscles along with extra oxygen — and there you'd go like a goat up a mountain.

If you went ahead and ran up a mountain at metaphoric times like these you'd probably be fine: It's what your brain is telling your body to do. And for the most part, assuming you're otherwise healthy, short periods of stress on your own parallel:

*continued on next page*

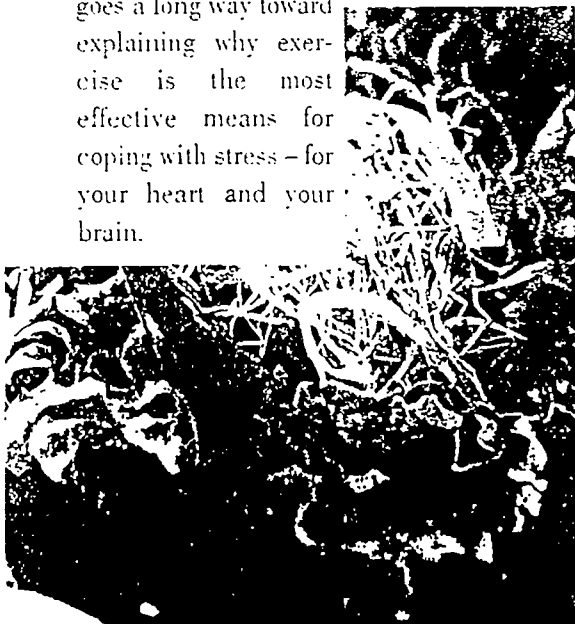


won't do much harm – particularly if you use effective coping strategies like exercise and relaxation.

But without releasing some of this available energy – or balancing it – the neurohormones charging around your body will do a lot of damage over time. For example:

- ◆ Increased cortisol suppresses the immune system and healing processes.
- ◆ Extra fats in the blood increase the total cholesterol level and decrease the proportion of high-density lipoprotein (HDL) cholesterol (the good stuff). They also promote weight gain.
- ◆ Increased angiotensin raises blood pressure and stimulates release of another hormone, aldosterone, which in turn affects potassium secretion and renders the heart more vulnerable to rhythm disturbances. Aldosterone promotes salt retention, which contributes to hypertension as well.
- ◆ Increased platelet count increases the chance of clotting, which raises the risk of heart attack and stroke.
- ◆ Chronic stress lowers the stimulation threshold in the brain, so it takes less excitement to kick your stress response into gear.

As coronary obstruction develops, you respond to mental stress that occurs 20, 30, or 40 times a day with a rise in resistance to blood flow and a fall in cardiac output – a prescription for heart attack. You now react to mental stress just exactly as if a bear were chasing you – every day of your life. Which goes a long way toward explaining why exercise is the most effective means for coping with stress – for your heart and your brain.



## Do It Now

Any exercise you do that increases your heart rate, from chasing down a cab to taking the steps by twos, will have fitness benefits – including mitigating the effects of stress. But the keys to real, measurable results are frequency, intensity, and duration.

Researchers have found that aerobic exercise that works your heart to within a target range of 70 percent to 90 percent of its maximum ability, for at least 20 minutes three or more times a week,

will give you the most significant fitness gains. Seventy percent of your maximum may seem discouragingly hard, but at that level you'll still be able to carry on a conversation, strategize for a sales meeting, compare notes on a pending acquisition, even harmonize with your headphones. And it's considerably less work than hauling your bags from an airline ticket counter to the departure gate at an airport.

Aerobic exercise, such as distance running, depends on a steady supply of oxygen from the aerobic system. The anaerobic system, at work during intense activity such as weight lifting, supplies limited amounts of energy for the short term.

During the first few minutes of exercise, both systems are at work.

Beyond ten minutes, as long as you keep your effort within your target heart rate range, your aerobic system takes over and uses your fat stores to fuel your exercise. Besides increasing your risk of injury, more intense exercise will activate your anaerobic system, which uses up muscle tissue for protein and glycogen. This is why moderate intensity exercise of longer duration does the most for your cardiovascular system and weight control – and thus, stress. If you stay in the target heart rate or aerobic range, you'll continue to strengthen your aerobic system.

To determine your target heart rate, first estimate your maximum heart rate by subtracting your age from 220. If you're 40, your maximum heart rate estimate is 180 beats per minute (bpm). Your target heart rate is 126 bpm if you're shooting for 70 percent of your heart's maximum:  $180 \times 70$  percent = 126 bpm. If you're going for 90 percent,  $180 \times 90$  percent = 162 bpm.  $126 - 162$  bpm is your target heart rate range.

*continued on next page*

BUSINESS WEEK APRIL 3, 1995



## YOUR TARGET HEART RATE

AGE	BEATS PER MINUTE AT	
	70% OF MAX.	90% OF MAX.
25	137 bpm	176 bpm
30	133 bpm	171 bpm
35	130 bpm	167 bpm
40	126 bpm	162 bpm
45	123 bpm	158 bpm
50	119 bpm	153 bpm
55	116 bpm	149 bpm
60	112 bpm	144 bpm
65	109 bpm	140 bpm
70	105 bpm	135 bpm

Once you know your range, you can figure out how hard you're working during exercise. Feel for your pulse, stop exercise, and start counting immediately because your heart rate will drop quickly. Make sure your touch is light - too much pressure will skew the results. Fifteen seconds is enough. Multiply the number of heart beats by four and you've got your beats per minute.

If you're exercising above your target heart rate range, ease up and after awhile take your pulse again. With practice you'll be able to associate how hard your heart's working with how you feel. But when you first start exercising you may be surprised at how easy it is to get your heart rate up into the target zone.

Higher heart rates result in greater fitness gains. At very high target heart rates you can achieve fitness gains even if you exercise for only 10 minutes, but the risks increase at such levels of intensity. Play it safe: Precede any new exercise undertaking with a visit to your doctor.

## Make It Fun!

**R**ichard H. Strauss, MD, editor-in-chief of *The Physician and Sportsmedicine* and a sports medicine doctor at The Ohio State University in Columbus, offers an excellent model for a successful approach to exercise. "Basically I'm lazy and I'm busy - put those together and I won't do anything unless it's fun," says Strauss, who at age 56 hasn't gained more than 5 pounds since high school and has a resting heart rate of 65 beats per minute - pretty good for a grown-up.

When he has time, Strauss swims or cycles at a nearby gym, and when he travels he takes along his in-line skates. But since his schedule can implode under patient pressure, he relies on a step stool - both at work and at home.

"When I'm doing paperwork, I don't have to be sitting at my desk," he says, adding that

he keeps the stools handy for some low-tech stairclimbing.

"It gets my blood going, keeps me awake - otherwise I'd fall unconscious over the papers I'm reading. And I don't do it till I sweat. I hate to sweat. Only time I like to be wet is when I'm in the water."

What Strauss has done for himself is to expand the definition of exercise. Though vigorous aerobic workouts are best for gaining top fitness, they're not the only form of exercise. Strauss has found he can improve his health considerably by simply being active - and so can you.

**MUSCLE CONTRACTION OR "TENSION HEADACHES" USUALLY ARISE DURING A STRESSFUL OR EMOTIONALLY CHARGED EVENT, WHILE VASCULAR HEADACHES OR "MIGRAINES" OCCUR AFTERWARDS.**

Walking to work or parking farther from the door, gardening, or carrying your clubs around the golf course still pay big health dividends over time. They're also comfortable, convenient - and

fun. And because you're likely to stick with them longer, they'll help you control your weight: A calorie burned is still a calorie burned - whether you're hoeing or rowing.

With this different view of exercise, a whole smorgasbord of possibilities opens up. Try this:

- ★ List the physical activities you enjoy, ranging from walking in the park to dancing. Exclude nothing.
- ★ Commit to participating daily in the activities you listed, and shoot for a minimum of 30 minutes a day.
- ★ Squeeze some physical activity into the day, no matter how busy you are. Exercise performed in bits and pieces is fine: Ten 3-minute sessions count as much in terms of overall health (though not aerobic fitness) as one 30-minute session. Take the stairs at every chance. Carry one bag of groceries per trip from your car to the house.
- ★ Include chores, such as mowing the lawn or washing windows. Although chores may not be fun they are exercise.

★ Recognize that a physical activity counts and is good for you, doesn't matter how you burn calories, just that you do.



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SEPARATE FAT FROM FICTION

Once you've adopted an increasingly active lifestyle, how do you eat to support it - satisfying your appetite and slowly losing weight? Exercise won't eliminate the need to pay attention to your diet; it simply gives you more maneuvering room.

*Most Americans derive about 37 percent of their daily calories from fat.*

One dietary ingredient that gets a lot of bad press is fat. Despite its satanic image, fat is an essential nutrient. It insulates your body to help you keep warm, helps you absorb fat-soluble, essential vitamins A, D, E, and K, and provides a concentrated source of energy for long hauls without food. A lean athlete, for example, typically carries more than 60,000 calories of stored fat.

But not only that, fats taste good, smell good, and have an appealing texture. Fats are satisfying, take longer to digest than carbohydrates or protein, and provide a comfortable sense of fullness after eating. Trouble is, too much of our diet is fat.

Most Americans derive about 37 percent of their daily calories from fat. Healthy adults should drop that level to about 30 percent, according to nutrition and heart experts. Some athletes restrict their fat intake further to 25 percent to leave room for carbohydrate-rich, muscle-fueling foods.

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BUSINESS WEEK / APRIL 3, 1995

tropical climates, such as coconut and palm, are also highly saturated. Saturated fats can increase both total cholesterol and low-density lipoprotein (LDL) cholesterol (the bad stuff).

Keep your saturated fat intake to less than 10 percent of your total daily calories. A simple way to do this is to limit saturated fats to no more than 20 grams a day. Cutting the high-fat cheeses and meats in favor of low-fat dairy foods and lean meats goes a long way to meeting this goal. And pay attention to packaged food ingredients to uncover added fats.



Polyunsaturated fats are found in vegetable oils, such as corn, soybean, safflower, and sunflower oils, as well as in fish. These fats are relatively soft at room temperature. They're healthier than saturated fats, but they're calorie-rich and should be eaten in moderation. Limit polyunsaturated fats to no more than 10 percent of total daily calories.

Monounsaturated fats tend to be liquid oils at room temperature. Their use may even have a positive effect on your cholesterol level. Though found in animal sources as well, primary sources of monounsaturated fats include olive oil, canola oil, and peanut oil. And although monounsaturated fats can comprise up to 15 percent of total daily calories, make sure your total calorie intake from fat doesn't exceed 30 percent - lest your attention to "good fat" turns into body fat.

KNOW YOUR OILS

SATURATED  
*Coconut & palm*

POLYUNSATURATED  
*Corn, soybean, safflower and sunflower*

MONOUNSATURATED  
*Olive & peanut*

For most active men, a low-fat diet would include 50 to 60 grams of fat per day; for women, 45 to 55 grams. But not all fats are equal.

Saturated fats are a problem. They include lard, butter, cheese, and other fats that are hard at room temperature. Most saturated fats are animal products, but the oils from

tend to be liquid oils at room temperature. Their use may even have a positive effect on your cholesterol level. Though found in animal sources as well, primary sources of monounsaturated fats include olive oil, canola oil, and peanut oil. And although monounsaturated fats can comprise up to 15 percent of total daily calories, make sure your total calorie intake from fat doesn't exceed 30 percent - lest your attention to "good fat" turns into body fat.

continued on page 100

**PATIENT INFORMATION ABOUT PROSCAR® (Prah-s-car)**  
Generic name: finasteride (fin-AS-tur-eyed)

PROSCAR is for the treatment of symptomatic benign prostatic hyperplasia and for use by men only.

Your doctor may prescribe PROSCAR if you have a medical condition called benign prostatic hyperplasia or BPH. This occurs only in men.

Please read this information, as well as the leaflet which accompanies your medication, before you start taking PROSCAR. Also, read the leaflet each time you renew your prescription, just in case anything has changed. Remember, this leaflet does not take the place of careful discussions with your doctor. You and your doctor should discuss PROSCAR when you start taking your medication and at regular checkups.

**What is BPH?**

BPH is an enlargement of the prostate gland. After age 50, most men develop enlarged prostates. The prostate is located below the bladder. As the prostate enlarges, it may slowly restrict the flow of urine. This can lead to symptoms such as:

- a weak or interrupted urinary stream
- a feeling that you cannot empty your bladder completely
- a feeling of delay or hesitation when you start to urinate
- a need to urinate often, especially at night
- a feeling that you must urinate right away

**Treatment options for BPH**

There are three main treatment options for BPH:

- **Program of monitoring or "Watchful Waiting".** If a man has an enlarged prostate gland and no symptoms or if his symptoms do not bother him, he and his doctor may decide on a program of monitoring which would include regular checkups, instead of medication or surgery.
- **Medication.** Your doctor may prescribe PROSCAR for BPH. See "What PROSCAR does" below.
- **Surgery.** Some patients may need surgery. Your doctor can describe several different surgical procedures for BPH. Which procedure is best depends on your symptoms and medical condition.

**What PROSCAR does**

PROSCAR lowers levels of a key hormone called DHT (dihydrotestosterone), which is a major cause of prostate growth. Lowering DHT leads to shrinkage of the enlarged prostate gland in most men. This can lead to gradual improvement in urine flow and symptoms over the next several months. However, since each case of BPH is different, you should know that:

- Even though the prostate shrinks, you may NOT see an improvement in urine flow or symptoms.
- You may need to take PROSCAR for six to 16 months or more to see whether it helps you.
- Even though you take PROSCAR and it may help you, it is not known whether PROSCAR reduces the need for surgery.

**What you need to know while taking PROSCAR**

- **You must see your doctor regularly.** While taking PROSCAR, you must have regular checkups. Follow your doctor's advice about when to have these checkups.
- **About side effects.** Like all prescription drugs, PROSCAR may cause side effects. Side effects due to PROSCAR may include impotence (or inability to have an erection) and less desire for sex. Each of these side effects occurred in less than 4% of patients in clinical studies. In some cases side effects went away while the patient continued to take PROSCAR.

Some men taking PROSCAR® (Finasteride) may have a decrease in the amount of semen released during sex. This decrease does not appear to interfere with normal sexual function. Rarely, some men have reported breast swelling and/or tenderness or allergic reactions such as lip swelling and rash.

You should discuss side effects with your doctor before taking PROSCAR and anytime you think you are having a side effect.

- **Checking for prostate cancer.** Your doctor has prescribed PROSCAR for symptomatic BPH and not for cancer—but a man can have BPH and prostate cancer at the same time. Doctors usually recommend that men be checked for prostate cancer once a year when they turn 50 (or 40 if a family member has had prostate cancer). These checks should continue while you take PROSCAR. PROSCAR is not a treatment for prostate cancer.

- **About prostate specific antigen (PSA).** Your doctor may have done a blood test called PSA. PROSCAR can alter PSA values. For more information, talk to your doctor.

- **A warning about PROSCAR and pregnancy.**

PROSCAR is for use by MEN only.

PROSCAR is generally well tolerated in men. However, women who are pregnant, or women who could become pregnant, should avoid the active ingredient in PROSCAR.

If the active ingredient is absorbed by a woman who is pregnant with a male baby, it may cause the male baby to be born with abnormalities of the sex organs. Therefore, any woman who is pregnant or who could become pregnant must not come into direct contact with the active ingredient in PROSCAR.

Two of the ways in which a woman might absorb the active ingredient in PROSCAR are:

**Sexual contact.** Your semen may contain a small amount of the active ingredient of the drug. If your partner is pregnant, or if you and your partner decide to have a baby, you must stop taking PROSCAR and talk to your doctor. If your partner could become pregnant, proper use of a condom can reduce the risk of exposing her to your semen (discuss this further with your doctor).

**Handling broken tablets.** Women who are pregnant or who could become pregnant must not handle broken tablets of PROSCAR. PROSCAR tablets are coated to prevent contact with the active ingredient during normal handling. If this coating is broken, the tablets should not be handled by women who are pregnant or who could become pregnant.

If a woman who is pregnant comes into contact with the active ingredient in PROSCAR, a doctor should be consulted.

Remember, these warnings apply only if the woman exposed to PROSCAR is pregnant or could become pregnant.

**How to take PROSCAR**

Follow your doctor's advice about how to take PROSCAR. You must take it every day. You may take it with or between meals. To avoid forgetting to take PROSCAR, it may be helpful to take it the same time every day.

Do not share PROSCAR with anyone else; it was prescribed only for you.

Keep PROSCAR and all medicines out of the reach of children.

FOR MORE INFORMATION ABOUT PROSCAR AND BPH, TALK WITH YOUR DOCTOR. IN ADDITION, TALK TO YOUR PHARMACIST OR OTHER HEALTH CARE PROVIDER.



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Hydrogenated fats are unsaturated fats that have been hardened with hydrogen molecules. Hydrogenation turns corn oil, for example, into tub or stick margarine that is suitable for cooking. Unfortunately, it also turns the unsaturated fats into saturated fats and creates trans fatty acids that act like saturated fats — and may raise cholesterol levels.

So which is better: butter, with its high saturated fat content, or margarine, with its trans fatty acids? Butter contains 7 grams of saturated fat per tablespoon compared with

*Keep your saturated fat intake to less than 10 percent of your total daily calories.*

*A simple way to do this is to limit saturated fats to no more than 20 grams a day.*

the 1 or 2 grams in most margarine. However, the trans fatty acids in margarines aren't yet reflected on food labels and their effect remains difficult to measure.

So limit your intake of fat. Instead of the more hydrogenated stick margarines, use the soft margarines with "liquid" and "partially hydrogenated" corn or safflower oils listed in the first two ingredients. Then use more olive oil or canola for sautéing, and experiment with some of the new no-fat products as well.

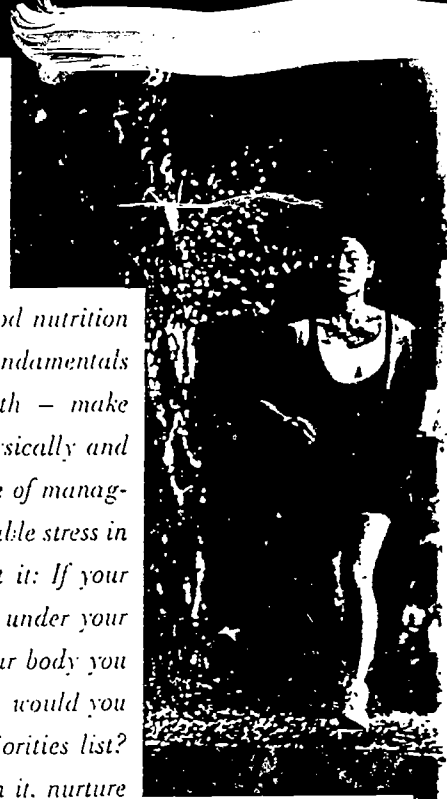
# 10 TIPS FOR STAYING ON TRACK

- 1 Exercise first thing in the morning. This prevents a crowded calendar from interfering with your workout, and you only have to shower and get ready for the day once. But not everyone is suited for this. (If you have a heart problem or are at risk for one, check with your doctor first.)
- 2 Buddy up. You can have more fun, and maybe even squeeze in an important conversation you couldn't otherwise manage.
- 3 Bait 'n' switch. Do only a little exercise as an incentive to get moving. Then, once you are up and out, you may decide to go ahead with a regular workout.
- 4 Quick change. To make it easier to convince yourself to exercise, change into your workout clothes as soon as you get home from work.
- 5 Compete with yourself. Try to run farther today than yesterday, for example, or in less time.
- 6 Log in. Keep a diary of daily exercise to track your progress and to reinforce your efforts.
- 7 Distract yourself. If you're on an exercise machine, watch television. If you're running, listen to the radio.
- 8 Keep it interesting. You may, for instance, walk on Monday, swim laps on Wednesday, lift weights on Tuesday and Saturday. Also, vary your workouts by changing the duration or intensity.
- 9 Celebrate. Reward yourself for sustaining your exercise program. If you exercise, you earn permission for a treat.
- 10 Be realistic. Don't expect to be ready for a marathon after two days of walking.

## INVEST IN YOUR HEALTH

**E**xercise and good nutrition – the fundamentals of health – make you physically and mentally more capable of managing the not inconsiderable stress in your life. Think about it: If your body were a company under your direction, and like your body you hoped to see it mature, would you put it last on your priorities list? Or would you invest in it, nurture it, take its pulse and track it well – knowing that the return on your investment will compound itself over time?

*Unless you're willing to bury your most important asset, manage your health like you manage your work: Put exercise and good nutrition at the top of your daily to-do list.*



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BUSINESS WEEK, APRIL 11, 1994

# If He Can Find The Time, So Can You.

Name: William C. Steere, Jr.  
Age: 58

Title: Chairman of the Board and  
Chief Executive Officer

Company: Pfizer Inc., a healthcare  
company headquartered in NYC

1994 Net Sales: \$8.3 billion

Employees: 40,000 worldwide

Exercise regimen: Aerobic; Stairclimbing machine, stationary bike.

Strengthening: weight machines, free weights.

Frequency: 1 to 4 times weekly, 1-hour sessions.

Weekend sports: Skiing, squash.

Exercise philosophy: "I like being fit."

Exercise advice: "Make it convenient."



PHOTO: JOHN ABBE

**A**s head of a global corporation in an industry that is profound-ly repositioning itself, Bill Steere is no stranger to stress. Yet he has personified the harried executive. In the middle of the day, up four times a week, he heads downstairs to Pfizer's corporate fitness facility and puts in an hour or so on the exercise equipment.

"Lots of times when you're under stress it's hard to focus on getting exercise," says Steere, who began his career at Pfizer as a new college graduate in 1959. "But I always feel better when I do."

Four years ago, Steere saw to the installation of the \$3 million on-site fitness facility. Previously, employees could take advantage of corporate sponsorship programs at local fitness centers, but after signing up, they often dropped out. "People wouldn't go because of the struggle to get out an hour during the day," says Steere. "I think the more convenient you can make it, the more people exercise."

Besides the facility itself, Pfizer provides employees gym clothes and lockers, pre-exercise screening to identify potential health problems, and trainers help design a fitness program and consult with exercisers. Employees responded positively and usage rates are high.

Steere sees the employee program as simply consistent with Pfizer's public commitment to wellness. "New York City is a difficult place to work," he says. "It's a good benefit to have in the building."

Text was written by the editors of *The Physician and Sportsmedicine*, a McGraw-Hill clinical journal exploring the medical aspects of exercise, sports and fitness. For subscription information to *Physician and Sportsmedicine*, please write: Magazine Services, *The Physician and Sportsmedicine*, 4530 W. 77th St., Minneapolis, MN 55435.

Health Track will continue in September with "Winter Won't Wait", a special advertising section focusing on exercise during winter.

HEALTH  
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A DISTANCE STAFF  
DEVELOPMENT  
PRESENTATION ON  
TOTAL QUALITY  
MANAGEMENT

1995

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**WHAT DO YOU WANT TO  
GAIN FROM THIS OVERVIEW?**

**NOTES**

Is 99.9 % accuracy adequate?

- ⇒
- ⇒
- ⇒
- ⇒
- ⇒
- ⇒
- ⇒

Popular people in TQM

- Zero Defects
- Seven Deadly Diseases
- Plan-Do-Study-Act
- Ten Steps to Quality Improvement

## WHAT IS QUALITY?

(Brainstorming Session)

[Break into groups and develop a definition of quality.]

## NOTES

## WHY IS QUALITY IMPORTANT?

According to Dr. Deming Quality:

Dr. Deming's Philosophy:

According to Juran Quality is:

NOTES

There are 2 ways to go after a problem:

- 1.
- 2.

According to Crosby:

Symptoms of a sick business:

Vaccination Serum - basics

Deming Total Quality Management

NOTES

- 
- 
- 
- 
- 

The Deming Cycle (Shewhart)

- Plan
- Do
- Study
- Act

Deming's Points

NOTES

DEMING'S ANALOGY

PROCESS METHODOLOGY

NOTES

Define the Process

Identify the Characteristics

Gather the Data

Analyze the Data

Uncover Detractors

Develop Improvements

Implement Improvements





**Cause and Effect** was created by Kaoru Ishikawa in 1952 to facilitate the understanding of a process. It is often called a Fishbone diagram.

**When do you use it?**

To organize the team's knowledge of the process and to increase the ability of the team to focus on actual causes of the problem or effect. It answers the question, "What could be causing the effect?"

Flow Chart is a diagram of steps in a process, the sequence of actions and the process of decisions.

**When do you use it?**

It is used to outline or sketch out the process and the avenues any deviation can take you. Essentially, what are the major steps?

**NOTES**

**Pareto Chart** was initially developed by Wilfredo Pareto who was an Italian Economist. He observed that about 20% of the population held about 80% of the wealth, in the 1940's. The 80/20 rule currently occurs whenever the total effect is divided into the contributing categories. A Pareto diagram is a bar graph that is arranged in descending order from left to right which will rank the variables in order of magnitude.

**When do you use it?**

To pick a starting point for analysis.  
(what is the more frequently noted problem).

**NOTES**

A **Scatter Diagram** is a graph that shows the possible relationship of correlation between 2 variables of 2 characteristics of a process.

**When do you use it?**

When you want to test what happens if one variable is changed and how that change effects another area.

A **Histogram** is a bar graph with out any space between them. The graph look for frequency distribution and variations.

**When do you use it?**

When you ask is the data normally distributed?

PROVERB

QUESTIONS

NOTES

TQM

SUPPORT MATERIALS

# DEMING'S 14 POINTS

## APPLIED TO SERVICE

Lots of service operations talk a good game, but they lag behind manufacturers in adopting quality as a way of life.

*By Ronald W. Butterfield*

Since the 1950s, W. Edwards Deming has been a familiar name in Japan. Deming, and the famous 14 Points that summarize the core of his philosophy, are considered largely responsible for Japanese industry's post-World War II recovery and rise to dominance in world markets.

But most U.S. manufacturers ignored Deming's work until around 1980. By then, thanks to severe competition, many were at death's door. Indeed, some had already died and disappeared. They were the ones that assumed there would always be a market for anything American industry produced. Instead, ongoing improvement in cost, quality and productivity had become critical to survival. For those who would listen and were willing to make the commitment, Deming had answers.

The service sector of the U.S. economy stands at a similar crossroad today. In the financial industry, for example, deregulation opened the field to fresh competition in the '80s. Today, increasing global competition in everything from banking to credit cards means domestic organizations need to develop a quality edge—quickly. Service industry leaders are familiar with Deming and his 14 Points, but many decline to adopt them because, they contend, "service is different from manufacturing."

The real reason may be that most service managers are so busy fighting fires they don't have time to reflect. They simply don't think about how to translate Deming's concepts into the language of service or to incorporate his principles into their corporate cultures. And even if they want to, few resources are available to guide them. Most quality consultants have a manufacturing background. They approach quality concepts from that perspective, and then add, "Of course, all these things are equally applicable to service businesses."

But the 14 Points do apply to the service industry. Reluctant managers will ask: "Why go to all that effort? Why not just keep telling our people how important quality is and encouraging them to keep doing their best?" According to Mary Walton's 1986 book, *The Deming Management Method*, Deming's answer to such questions is straightforward: "Everyone doing his best is not the answer. Everyone *is* doing his best. It is necessary that people understand the reason for the transformation that is necessary for survival. Moreover, there must be consistency of understanding and of effort. There is no substitute for knowledge."

When it comes to managing quality, manufacturers have a significant jump on service organizations. Some service firms talk a good game about

ple, you know some are much more accurate than others. Point 2 suggests that if one of your people notices that a particular vendor's lists are chronically inaccurate, it should be brought to management's attention. It should not be ignored or accepted as normal. Likewise, management should raise the issue with the vendor so the vendor can try to improve.

**3. Cease dependence on mass inspection.** You cannot inspect quality into any product or service. When you throw out or rework a defective item, you are not concentrating on quality improvement—nor are you improving unit cost. Therefore, Deming says, stop relying on mass inspections of the final result of a process (the finished product). Rather, concentrate on improving the process itself so that you'll prevent errors from occurring in the first place.

Let's apply this principle to the real estate loan department of a bank. One of its functions is to prepare documents for signature by the buyer and seller, and to file them with the Registrar of Deeds. Suppose mortgage and escrow-payment amounts are frequently typed incorrectly by the typing pool. Rather than going back to the source of the problem, loan officers simply toss out the forms with the incorrect numbers on them and have their own secretaries retype them correctly. What happens? Errors continue to show up and unit cost per loan package increases significantly.

If quality and productivity are important to this bank, what should it do? Hiring people to inspect all of the work coming out of the typing pool is not the answer. A better solution is to go back and follow documents through the entire process to find out why the payment amounts are incorrect. Maybe some of the loan officers are providing the wrong information. Maybe the errors are due simply to haste and carelessness in the document-preparation area. The bank must find the cause of the problem and fix it, not just nurse the symptoms.

**4. End the practice of awarding business on the basis of price tag.** We have been in the habit of giving business to



*When it comes  
to managing quality,  
manufacturers have  
a significant jump  
on service organizations.*

the lowest bidder for too long. Purchasing managers have to reassess their roles and responsibilities. They have a key role to play in the quality improvement process. They must understand when and how the materials and supplies they order will be used.

Even something as simple as pin-feed billing forms requires careful scrutiny of vendors. The paper stock must meet stated standards. Printed forms should not be delivered until properly cured. Perforations and printed sections should be correctly placed. Lack of attention to these factors can cause jamming, wrinkling, smearing and misalignment when statements are being processed.

Standards and requirements for every item or service purchased from vendors should be established and then followed to the letter. Nothing less is acceptable. It won't be long before you realize the value of a single supply source and a long-term relationship with your vendor.

**5. Improve constantly and forever the system of production and service.** At the beginning of any quality improvement effort it is fairly easy to realize major gains in accuracy, timeliness and productivity by using simple sampling and Pareto analysis. Gradually, the primary causes of errors are eliminated and the process is brought

into statistical control. But a process that is in statistical control is not error-free.

Let's say you manage an area that handles correspondence from customers. When you start a quality improvement program, you'll probably begin by sampling recently closed correspondence files. If the sampling is done correctly, you'll quickly find out which employees are making the most errors in correspondence and what types of errors they are making most frequently. You can take action—retraining, coaching, etc.—to bring the process into statistical control. But your job isn't finished. In fact, you're just beginning.

The real work involves looking for ways to improve the process itself. Perhaps work flow can be improved, and the total time required to process incoming items can be reduced. Maybe some parts of the process can be automated, eliminating certain opportunities for error. The customer correspondence unit, for example, could put its most frequently used replies on computer so that letters are generated simply by entering the appropriate code.

**6. Institute training on the job.** Too often workers learn their jobs from other workers who are poorly trained or from inadequate printed instructions. Many workers don't know what constitutes a good job or a bad job.

Training is not a fringe benefit for employees. It's not something you do only when you are in danger of failing to meet your production quota or quality standards. And it's not something you do only when you have time. Training must be a planned part of the system or process. You cannot produce a quality product or deliver a quality service without it. The bottom line directly reflects training quality.

Managers responsible for processing customer payments should think about training needs *before* their people fail to meet productivity goals or they're deluged with encoding errors. Training should begin the first day for each new employee.

**7. Institute leadership.** As Deming says, leaders should aim to help people and machines do a better job.

Since it's management's job to provide leadership, managers must work continually to uncover barriers to pride of workmanship. Employees know exactly what the barriers are: pressure to meet deadlines without concern for quality, an overriding emphasis on numbers, inadequate tools for doing the job, continual rework of items that are in error and so on.

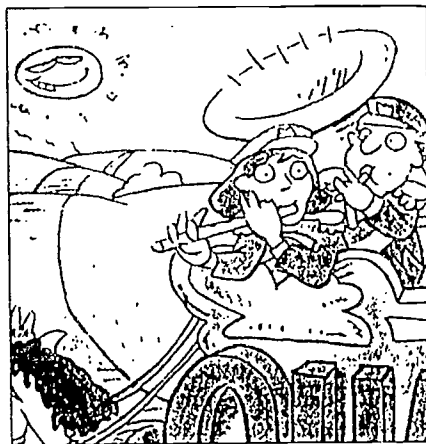
Deming suggests that typical supervisors allow these barriers to exist because they don't know the job and aren't interested in learning it. Workers realize this and are reluctant to bring up problems they see.

The customer-service people in a commercial bank often use microfiche containing customer accounts if an on-line computer system is not available. Suppose the quality of the microfiche is poor, which makes some of the data difficult to read and results in frequent errors. If this barrier is to be eliminated, workers should feel free to bring the problem to their supervisor's attention. The supervisor should feel equally free to take the problem to management, which must act quickly and decisively to correct the situation.

**8. Drive out fear.** Eliminating fear in the workplace is something we hear very little about. Perhaps fear at work is so commonplace that we just accept it as normal and think little of it. We have not recognized fear for what it is: a primary cause of quality and productivity problems.

The types of fears Deming addresses include fear of asking questions, fear of expressing ideas, fear of asking for further instructions, fear of mentioning that equipment is not working properly and fear of raising issues about working conditions.

According to Deming, the cost of fear in the workplace is appalling. Consider the operator of an embossing machine in a credit-card processing center. Volume for the month is heavy, far above what was forecast. The pressure is on to get production up. The operator has noticed that the plastic card-feed mechanism on the embossing machine is occasionally malfunctioning. But because of the pressure to produce, he says nothing to his supervisor for fear he will be blamed for the resulting backlogs if he



*Find the cause  
of the problem and  
fix it;  
don't just nurse  
the symptoms.*

shuts down the machine for repairs. Two days later a major problem develops and the feed mechanism breaks down altogether. Because of the failure to perform preventive maintenance early on, the embossing machine is down for three days rather than for what would have been a three- to four-hour repair job.

**9. Break down barriers between departments.** The point here is simple, yet it is frequently overlooked even by the most experienced managers. An organization cannot run at optimum efficiency if the right hand doesn't know what the left hand is doing. Each area should be aware of how its output affects other areas as well as customers. Each area should be responsible for alerting others to any problems coming their way.

Lack of communication between the marketing department and the customer-contact functions is a typical problem. Marketing develops a new product, service or promotional campaign without getting any input from the people who deal directly with customers every day. No one thinks to ask them how they think customers will react to the product or what kind of impact a new promotional campaign will have on their work load. Sometimes marketing will offer a new service to customers

without even informing the front-line employees who are supposed to provide it. The first time the poor front-liner hears of the new two-for-one policy is when a customer is standing there angrily demanding number two.

If optimal use of all organizational resources is the goal, all departments must communicate constantly on both a formal and informal basis.

**10. Eliminate slogans, exhortations and targets asking for zero defects and new levels of productivity.** With Point 10, Deming raises an interesting issue that contradicts the views of many management consultants. He tells us to get rid of slogans, banners, buttons and balloons in the workplace. Forget about setting productivity targets for work groups and posting daily, weekly and monthly progress reports. Forget about zero-defects programs and having people sign their work.

All of these efforts are aimed at motivating people to work faster and produce more. According to Deming, they not only don't work, they actually have a negative impact on productivity and quality.

A payment-processing area can illustrate this point. Assume these employees use video display terminals to key in payments. Also assume many of these terminals are old and their screens are difficult to read. If employees are asked to improve their productivity by 10 percent, imagine their response when management's only contribution is to plaster the place with banners proclaiming, "Increase productivity!" or "Do it right the first time!"

Sure it sounds ridiculous. Yet how many times have you seen it happen?

Management's job is to show people how to do their work more accurately and efficiently. To do so, they must provide the proper tools and training required to meet quality and productivity objectives.

Certainly we ought to have numerical goals, but they do not have to be the focal point of the improvement efforts communicated to employees. Instead, we need to work with individuals to help them set their own goals and then integrate those personal goals with the organization's overall goal.

It's all one more way of saying: If



we want improvement, we have to lead with actions, not with words.

**11.** *Eliminate work standards that prescribe numerical quotas. Substitute leadership.* Theoretically, productivity standards are established for the work force so that management meets its output goals. The problem with such quotas and standards is that they are based on averages, which means that half of the people fail to reach standard. This emphasis on productivity rates is ultimately detrimental to morale and to the bottom line. Shoddy performance and poor workmanship are allowed to slip by because of the urgent need to produce.

The key to productivity and quality improvement is to look for differences in performance and to create an atmosphere of receptivity to new ideas and recognition. An effective productivity standard should be developed and communicated so that everyone knows acceptable standards of quality.

A typical airline reservation center demonstrates this point. If each customer-service representative is asked to handle 20 calls per hour without exception, what may happen? The reps may find themselves cutting a customer short or giving incomplete information in order to meet the productivity standard. If this happens too often, the reps know the job is not being done as it should be and begin to take less pride in their work. The quality of service deteriorates even further, and customer complaints begin to rise.

A good manager will recognize that quality must be an integral part of a service standard. It's more profitable to take a little longer to handle a customer's inquiry properly the first time than it is to spend time calling the customer back. A good manager also will recognize the value of customer-service representatives who are proud of the quality of service they provide.

**12.** *Remove barriers that rob hourly workers of their right to pride of workmanship.* We touched on this before, under the leadership heading in Step 7. Front-line employees know more than their supervisors and managers



*Front-line employees  
know more  
than their supervisors  
and managers  
give them credit for.*

give them credit for. Most employees realize that improvements in quality also lead to improvements in productivity. But management frequently places roadblocks in the way of such improvement.

If you ask them, employees will tell you what these roadblocks are. They'll often say they don't know what is expected of them. What is acceptable and what is not changes from one day to the next, depending on the pressure to produce. Employees get little feedback on their performance until review time rolls around and then, of course, it's too late for them to do anything about it.

Management must take the time to understand what hinders people's work. That means asking several questions: Do employees understand what their jobs are? Do they know what level of work is acceptable? Have they been adequately trained? Is the equipment they use in good condition? Are they getting the assistance they need from management? Is there an effective way for them to report problems or suggestions? If so, is prompt action taken to resolve them?

**13.** *Institute a vigorous program of education and self-improvement.* As a company makes progress in quality and productivity improvement, two types of training needs will arise.

First, as productivity improves, the number of employees required to produce the same results will decline. Surplus people must be trained for other positions within the company. (If you expect employees to play an effective role in the improvement process, no one should lose his or her job because of productivity gains.)

You also will need to train selected managers and workers in the fundamentals of statistical quality control. Techniques such as Pareto analysis, for example, allow you to discover the most common errors in a billing operation. Without employees who have a thorough understanding of sampling techniques, control charts, Pareto analysis and so on, further improvement will be limited.

**14.** *Everybody in the company must work to accomplish the transformation.* Quality must be given equal status with all the other operations in the organization. Without senior management involvement and commitment, improvement efforts will fail.

Top management must appropriate and allocate the resources needed for this effort. Executives must act as quality spokespersons for the organization and make their commitment clear to all employees. Quality must be managed with the same emphasis that financial management receives.

There you have Deming's management philosophy in a nutshell. For those of us involved in training, the challenge is to take the time to understand Deming's work as it applies to our industry, and to develop a way to transfer this knowledge to management and employees at all levels as quickly as possible.

Deming's 14 Points apply equally to manufacturing and service management. It's time for those of us in service industries to carry the message into the field. Our friends in manufacturing have already shown us what will happen if we fail to take action. It's not a pretty sight. [7]

Ronald W. Butterfield is a quality and productivity improvement consultant with Management Dynamics, a consulting company in Sioux Falls, SD.



# TQM

## A TIME FOR IDEAS

BY TED MARCHESE

**I**t's fascinating to watch the arrival of Total Quality Management (TQM)—or Continuous Quality Improvement (CQI), as it is called by its health care practitioners—in higher education. A few campus pioneers began their TQM effort in the eighties; the big wave of interest kicked in during the 1991-92 academic year; by now, it's hard to find a campus without a knot of people trying to implement the thing.

On almost any campus, thin as the knowledge may yet be, people are already stoutly for Total Quality or deeply skeptical of it. What the quick-to-judge miss—what the early, triumphalist writing about TQM in higher education also misses—is that Total Quality is complicated, important, difficult to implement, and far from figured out. Contrary to the tool-driven, seven-step workshops that consultants are busily selling, we're years away from knowing what academic versions of TQM will appropriately look like.

to tend to what Peter Senge and others label "organizational learning." In TQM, 85 percent of the problems that arise in the course of work are attributable to the organization's systems, just 15 percent to the shortcomings of individual employees. The manager's job, then, is to improve constantly the work systems of the organization, to drive out blaming and fear, to remove obstacles in the system that prevent persons or teams from doing their best work.

A lot of powerful ideas are packed into the preceding paragraph; many of them contradict prevailing norms on campuses where blaming and fear infect relationships, teamwork is rare, and managers know best. The good news, though, is that many of these "new" organizational teachings turn out to be ones the academic world is ready for. To the surprise and delight of many of its campus initiators, this "human side of TQM"—especially the idea of working in teams with real authority—has struck a positive chord, to the frequent happy improvement of work processes and morale.

The early success of a few teams, of course, does not a campus remake...teamwork is only a first step on a longer, difficult journey the quality movement would have us undertake. At a deeper level, the barriers are cultural, attitudinal, and political. What trust, for example, do collegiate organizations vest in the broad range of their employees? What value is placed on their development? In companies like Motorola, Corning, or GM's Saturn Division, a remarkable 5 percent of the company's expenditures are devoted to employee education, training, and development; Motorola, which has realized 15 percent or greater productivity gains for eight years running, thinks its return on investment for employee training is 30-1. Question: Why is it that in almost any university or college—organizations devoted to learning—the comparable expenditure will be a fraction of one percent?

The sixth insight has to do with organizational *structures*. Quality champions argue that, to assure the delivery of value in the marketplace, work has to be organized around the needs and preferences of *customers*, not those of the corporation or its employees.

In the bureaucratic world of old, the particulars of most work processes tended to be clustered within neatly tiered departments or disciplines ("silos"), each with its

own turf and norms—manufacturing, sales, finance, R&D, purchasing, and so on. As the Cadillac Motor Car Company tells it in its Baldrige presentation, the consequence for the company (up until the mid-eighties) was "over the wall engineering": car buffs in the design shop would draw up a new model, fins and all; they'd toss their drawings over the wall to engineers, who were supposed to figure out how to manufacture it; the engineers tossed their work over the wall to the factory floor, where workers were supposed to build it; upon which the car went to dealers, who were supposed to sell it; whence it was passed to the buyer, to whom they said "good luck."

ONE OF THE IDEAS TQM  
HAS PUT IN THE AIR IS  
THAT ORGANIZATIONS  
SHOULD BE DRIVEN BY  
THE INTRINSIC MOTIVATION  
IN ALL OF US TO DO OUR  
BEST WORK.

Now that whole process is inverted, or at least turned on its side, and the walls disappear: customers, mechanics, dealers, assembly-line workers, engineers, designers—even the finance people—work together as a team to produce a car that is buildable, sellable, usable, fixable, and a delight to the customer. The entire process, as they say, has been re-engineered.

From a quality perspective, American colleges and universities seem incredibly vertical and compartmentalized—like a corporation of 10 years ago. Indeed, we practice "over the wall teaching" as students traipse across loose collections of free-standing courses on the way to degrees

of unspecified outcome. Anything that requires cross-unit collaboration, like student advisement or general education, never seems to be done well.

What, then, shall we make of the coming of TQM? There *are* powerful, relevant ideas here: wonderful stories of accomplishment have already been written in its name, as you'll see on the following pages. Even so, the transformations TQM wants are so great that the best one can say is that this, too, will be uphill.

The pessimism about TQM's arrival in higher education comes from a comparison with its adoption in industry. Motorola and Xerox remade themselves into "high-performing work organizations" because they absolutely had to—it was change now or die. Few institutions or people in higher education feel that's a reality for us now....there just isn't that "heat at the backside" that brought transformation elsewhere. Even if we felt that urgency, I'm not sure that a headlong, externally driven rush into this thing makes sense for us. Too much of value could be left behind.

Having said that, I return to the ideas that TQM has put in the air. One of those ideas is that organizations should be driven by the intrinsic motivation in all of us to do our best work. Might it be that a fine sense of our own possibilities—and of our obligations to students, knowledge, our publics, and to one another—could serve as impulse for a home-grown push for higher quality?

What vision might drive such a push? What is it we hope for from our work? Last winter in *Change*, Jane Tompkins listed what she wanted from her university work: a common enterprise; belonging; good feelings in the workplace; a community of hope; an integrated life. Here's another answer, from Max DePree's "Leadership is an Art"—a little book written by the CEO of a quality-oriented furniture company:

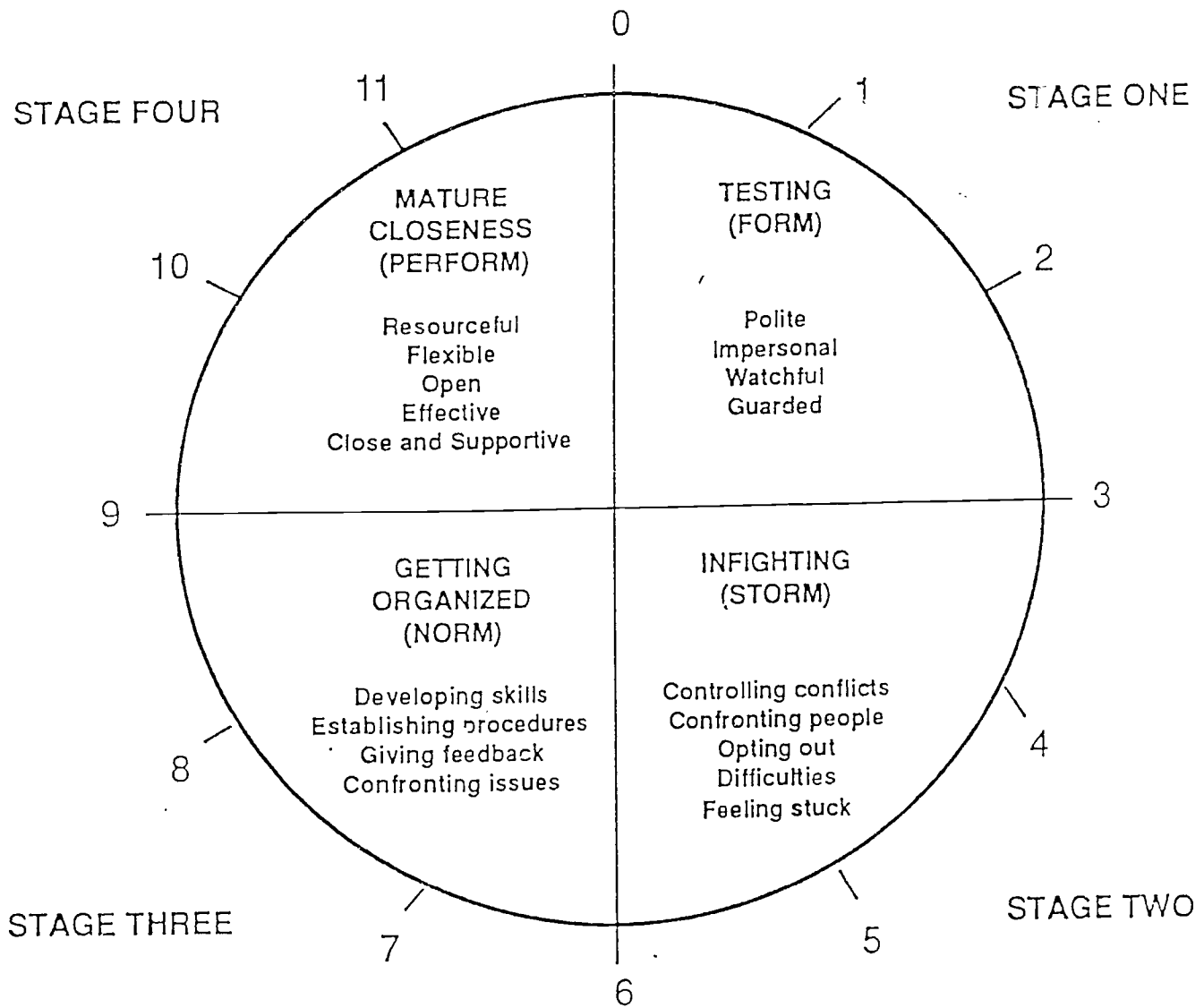
We would like to find the most effective, most productive, most rewarding way of working together. We would like to know that our work process uses all the appropriate and pertinent resources: human, physical, financial. We would like a work process and relationships that meet our personal needs for belonging, for contributing, for meaningful work, for the opportunity to make a commitment, for the opportunity to grow and be at least reasonably in control of our own destinies. Finally, we'd like someone to say "thank you."

## SELECTING A PROCESS

SELECT A PROCESS (NOT A SYSTEM OR DESIRED SOLUTION) THAT:

- HAS A DIRECT IMPACT ON CUSTOMERS
- EVERYONE HAS INTEREST IN
- RECYCLES ON A REGULAR BASIS
- IS RELATIVELY SIMPLE
- IS SOMETHING A SUBSTANTIAL GROUP AGREE IS IMPORTANT TO THE ORGANIZATION

# TEAM-DEVELOPMENT WHEEL



## TEAM PLAYERS

- SPONSORS
- LEADERS
- FACILITATORS
- MEMBERS (TASK ROLES/MAINTENANCE ROLES)
  - Initiator
  - Information Seeker
  - Energizer
  - Orientator
  - Information Giver
  - Opinion Giver
  - Coordinator
  - Evaluator/Critic
  
  - Encourager
  - Harmonizer
  - Compromiser
  - Standard Setter
  - Follower

## RECIPE FOR A SUCCESSFUL TEAM

- CLARITY IN TEAM GOALS
- AN IMPROVEMENT PLAN
- CLEARLY DEFINED GOALS
- CLEAR COMMUNICATION
- BENEFICIAL TEAM BEHAVIORS
- WELL-DEFINED DECISION PROCEDURES
- BALANCED PARTICIPATION
- ESTABLISHED GROUND RULES
- AWARENESS OF THE GROUP PROCESS
- USE OF THE SCIENTIFIC APPROACH

## DATABASE DECISION MAKING

- FLOW CHART
- CHECK SHEET
- PARETO CHART
- CAUSE & EFFECT DIAGRAM
- RUN CHART
- HISTOGRAM
- SCATTER DIAGRAM
- CONTROL CHART

THE QUALITY PROCESS

OBJECTIVE

ACHIEVE BUSINESS SUCCESS  
IN A CHANGING ENVIRONMENT  
WITH FINITE RESOURCES



## TQM: THE IDEAS

- CUSTOMER FOCUS
- CONTINUOUS IMPROVEMENT
- MANAGEMENT BY FACT
- BENCHMARKING
- PEOPLE
- STRUCTURES

**TIME-DO YOU MANAGE IT OR DOES IT MANAGE YOU?**

**A DISTANCE LEARNING STAFF DEVELOPMENT PROJECT  
LACKAWANNA JUNIOR COLLEGE 1995**

JOYCE PACKARD KERRICK

Time- we all have it and yet we say we don't. We all think there should be more hours in the day. But what would we really do with any more time that we can't do now? Everyone has the same 24 hours each day but some people do a much better job of managing their time than others. Time management skills are the key to developing an efficient and effective personal and professional life. Time management lets you have the quality time you need with your family as well as the time to do an excellent job at your work place.

### **I. Goal Setting**

The most basic time management strategy is to have a **PLAN**. Set personal and professional goals. Look at each goal and develop an action plan to meet that goal. Then prioritize the goals. Which are most important for you to achieve now and which are more long term in nature? Do you need to address any part of the goal immediately?

Goals are **SMART**.

**S**--specific; written down and concrete

**M**--measurable; you can tell when it is completed.

**A**--achievable; realistic and attainable.

**R**--recorded; written down and reviewed periodically.

**T**--timely; has a time frame associated with it; i.e. 3 months,  
2 years, next Friday.

Once you have determined the most important goals for you, make an **ACTION PLAN**. Decide exactly how you will reach each goal. Set time tables and put specific tasks into place. When you accomplish a goal or subgoal, **CROSS IT OFF** and celebrate the achievement. When someone asks you to do some task you can now look at your **ACTION PLAN** and decide if this fits into your personal or professional goals. If not, **JUST SAY NO**. The only way to get more time to do what you

want or need to do to accomplish your goals is to be very specific in determining what you have time for or need to make time for.

Maintain flexibility in your goals by reviewing them to see if adjustments need to be made. Perhaps the goal you set for spending less time commuting is no longer an issue and can be revised or eliminated all together. Maybe you have changed job responsibilities and need to adjust your professional development goals to address those changes. Don't think that goals are set in stone. Life changes and so should your goals.

## **II. Organization**

The next most important step in managing time effectively is **GETTING ORGANIZED**. The best plans in the world will fall apart if there is no organizational structure to support them. You need to organize your time in two areas; personal life and professional life.

Personal organization-find or develop a system that works for your family. Some families like to keep one BIG calendar with everyone's

activities listed. Other families let each individual keep track of their own schedules and then tell the rest of the family when important events are taking place.

Have a place to keep important papers. Then everyone will know where to look for their birth certificates, passports, and other valuables. Set up a place for things that need to be signed or filled out. Put all needed items for school or work in the same place every day. Keys and bookbags will be less likely to get lost if they are always stored in the same place. Make it a habit to put all coats and boots in the closet as soon as they are removed. They will not get lost or mislaid if the habit is ingrained from the beginning. It takes a minimum of 21 repetitions for an activity to become a habit.

Use a desk calendar to plan the month. Find the right daily or weekly planner for you. Write out an Action List each day. This includes the things you want to accomplish that day.

Keep your supplies at hand; pencils, paper, computer, stapler, clips, and whatever else you need to get it done!

### III. Time Bandits

Use the telephone to your advantage. Telephone Tag-leave a short message including the time you will be available to speak with the person; **then Be There.** Return all your calls at the same time each day-right before or after lunch or quitting time. Limit the time you spend with each caller.

Stand up when talking to a long winded caller. It will help you be more assertive in saying good-bye. Have a list of the topics for discussion before you dial and check it off as you speak. Ask yourself if you really need to call this person. Maybe someone else can handle the routine call backs or other tasks. If you have a very detailed conversation ahead, fax a hard copy of the pertinent details so that the other person can see what you are talking about. If necessary, hang up. Be polite and say "thanks for calling," but **hang up!**

#### **IV. Visitors in the Office**

Remove extra chairs from the area. Put your desk in an unusual place to make it uncomfortable for the visitor to stay. Do not sit facing the doorway. Keep a clock in sight and look at it to signal that the meeting is over. Stand up and move toward the visitor and the door. Schedule an appointment with the person for later in the day at your convenience.

#### **V. Paperwork**

Handle each piece of paper no more than twice; once is better. Write replies to memos on the memo or a copy to eliminate having to formulate a reply. Don't open the junk mail-discard it! If the paperwork has a deadline-put it on your calendar as a reminder. Carry a note card or small notebook to write down important things that happen or things you need to act on. Add these items to your Action List for the next day.



## **VI. Meetings**

Get there on time. This will encourage the convener to start and end on time. Be prepared to discuss the topic at hand. Keep your comments relevant and to the point. Sit where you can see all the players but not in the prominent seat unless you are running the meeting. Take notes and put them in a file to bring along for the next meeting. Don't let your mind wander.

Make notes on your Action List about any tasks that came about because of the meeting. Help to keep the meeting moving. Don't carry on side bar conversations. Practice deep breathing when the meeting gets tense or runs over the time allotted. Leave the meeting when it's over. Don't let yourself get drawn into rehashing the meeting.

## **VII. Socialization**

Be friendly to your co-workers but don't spend a lot of time visiting with them. Limit the conversation to necessary items related to your work. If visitors come to your office, stand up and move toward

the door. Only discuss personal problems or concerns with your closest friends, not everyone in sight. Do not let confidential information slip out in conversations. Remember we all have only 24 hours in a day. Use your time wisely and to its greatest effect by managing each activity. Time can be your friend if you manage it wisely.