For Violence Prevention

BOOK TEN
Promoting Alternative Thinking Strategies

Blueprints for Violence Prevention

PROMOTING ALTERNATIVE THINKING STRATEGIES (PATHS)

SERIES EDITOR

Delbert S. Elliott

PRINCIPAL AUTHOR

Mark T. Greenberg and Carol Kusche

CONTRIBUTING AUTHOR

Sharon F. Mihalic

BLUEPRINT CONFERENCE PARTICIPANTS

Designer's Conference

Isela Dabdoub
Delbert Elliott
Mark Greenberg
Jennifer Grotpeter
Diane Hansen
Landa Heys
Carol Kusché
Sharon Mihalic
Eileen Rosen

Focus Group Conference

Delbert Elliott
Abigail Fagan
Jennifer Grotpeter
Anne Guilfoile
Diane Hansen
Landa Heys
Sharon Mihalic
Hal Nees
Bill Porter
Kathy Scott
Henry Sontheimer
Bill Woodward

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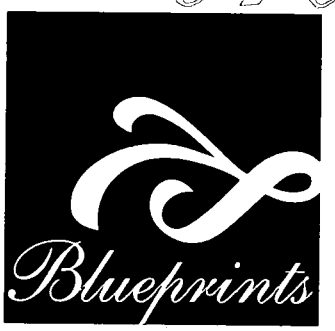
Center for the Study and Prevention of Violence
Institute of Behavioral Science
University of Colorado, Boulder
Campus Box 442
Boulder, Colorado 80309-0442
Phone 303/492-8465 Fax 303/443-3297



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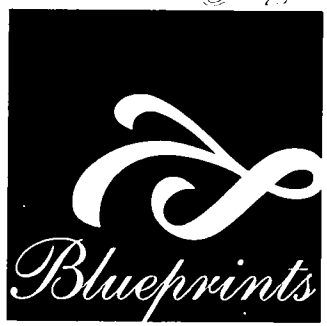


Editor's Introduction

EDITOR'S INTRODUCTION

Introduction

The demand for effective violence and crime prevention programs has never been greater. As our communities struggle to deal with the violence epidemic of the 1990s in which we have seen the juvenile homicide rate double and arrests for serious violent crimes increase 50 percent between 1984 and 1994,[1] the search for some effective ways to prevent this carnage and self-destructiveness has become a top national priority. To date, most of the resources committed to the prevention and control of youth violence, at both the national and local levels, has been invested in untested programs based on questionable assumptions and delivered with little consistency or quality control. Further, the vast majority of these programs are not being evaluated. This means we will never know which (if any) of them have had some significant deterrent effect; we will learn nothing from our investment in these programs to improve our understanding of the causes of violence or to guide our future efforts to deter violence; and there will be no real accountability for the expenditures of scarce community resources. Worse yet, some of the most popular programs have actually been demonstrated in careful scientific studies to be *ineffective,* and yet we continue to invest huge sums of money in them for largely political reasons.

What accounts for this limited investment in the evaluation of our prevention programs? First, there is little political or even program support for evaluation. Federal and state violence prevention initiatives rarely allocate additional evaluation dollars for the programs they fund. Given that the investment in such programs is relatively low, it is argued that every dollar available should go to the delivery of program services, i.e., to helping youth avoid involvement in violent or criminal behavior. Further, the cost of conducting a careful outcome evaluation is prohibitive for most individual programs, exceeding their entire annual budget in many cases. Finally, many program developers believe they know *intuitively* that their programs work, and thus they do not think a rigorous evaluation is required to demonstrate this.

Unfortunately, this view and policy is very shortsighted. When rigorous evaluations have been conducted, they often reveal that such programs are ineffective and can even make matters worse.[2] Indeed, many programs fail to even address the underlying causes of violence, involve simplistic "silver bullet" assumptions (e.g., I once had a counselor tell me there wasn't a single delinquent youth he couldn't "turn around" with an hour of individual counseling), and allocate investments of time and resources that are far too small to counter the years of exposure to negative influences of the family, neighborhood, peer group, and the media. Violent behavior is a complex behavior pattern which involves both individual dispositions and social contexts in which violence is normative and rewarded. Most violence prevention programs focus only on the individual dispositions and fail to address the reinforcements for violence in the social contexts where youth live, with the result that positive changes in the individual's behavior achieved in the treatment setting are quickly lost when the youth returns home to his or her family, neighborhood, and old friends.

Progress in our ability to effectively prevent and control violence requires evaluation. A responsible accounting to the taxpayers, private foundations, or businesses funding these programs requires that we justify these expenditures with tangible results. No respectable business or corporation would invest millions of dollars in an enterprise without checking to see if it is profitable. No reputable

physician would subject a patient to a medical treatment for which there was no evidence of its effectiveness (i.e., no clinical trials to establish its potential positive and negative effects). Our failure to provide this type of evidence has seriously undermined the public confidence in crime prevention efforts generally, and is at least partly responsible for the current public support for building more prisons and incapacitating youth—the public knows they are receiving some protection for this expenditure, even if it is temporary.

The prospects for effective prevention programs and a national prevention initiative have improved greatly during the past decade. We now have a substantial body of research on the causes and correlates of crime and violence. There is general consensus within the research community about the specific individual dispositions, contextual (family, school, neighborhood, and peer group) conditions, and interaction dynamics which lead into and out of involvement in violent behavior. These characteristics, which have been linked to the onset, continuity, and termination of violence, are commonly referred to as "risk" and "protective" factors for violence. Risk factors are those personal attributes and contextual conditions which increase the likelihood of violence. Protective factors are those which reduce the likelihood of violence, either directly or by virtue of buffering the individual from the negative effects of risk factors.[3] Programs which can alter these conditions, reducing or eliminating risk factors and facilitating protective factors, offer the most promise as violence prevention programs.

While our evaluation of these programs is still quite limited, we have succeeded in demonstrating that some of these programs are effective in deterring crime and violence. This breakthrough in prevention programming has yet to be reflected in national or state funding decisions, and is admittedly but a beginning point for developing the comprehensive set of prevention programs necessary for developing a national prevention initiative. But we are no longer in the position of having to say that "nothing works."

Ten proven programs are described in this series of ***Blueprints for Violence Prevention***. These Blueprints (which will be described later in this Editor's Introduction) are designed to be practical documents which will allow interested persons, agencies, and communities to make an informed judgment about a proven program's appropriateness for their local situation, needs, and available resources. If adopted and implemented well, a community can be reasonably assured that these programs will reduce the risks of violence and crime for their children.

Background

The violence epidemic of the 1990s produced a dramatic shift in the public's perception of the seriousness of violence. In 1982, only three percent of adults identified crime and violence as the most important problem facing this country; by August of 1994, more than half thought crime and violence was the nation's most important problem. Throughout the '90s violence has been indicated as a more serious problem than the high cost of living, unemployment, poverty and homelessness, and health care. Again, in 1994, violence (together with a lack of discipline) was identified as the "biggest problem" facing the nation's public schools.[4] Among America's high school seniors, violence is the problem these young people worry about most frequently—more than drug abuse, economic problems, poverty, race relations, or nuclear war.[5]

The critical question is, *"How will we as a society deal with this violence problem?"* Government policies at all levels reflect a punitive, legalistic approach, an approach which does have broad

public support. At both the national and state levels, there have been four major policy and program initiatives introduced as violence prevention or control strategies in the 1990s: (1) the use of judicial waivers, transferring violent juvenile offenders as young as age ten into the adult justice system for trial, sentencing, and adult prison terms; (2) legislating new gun control policies (e.g., the Brady Handgun Violence Prevention Act, 1993); (3) the creation of "boot camps" or shock incarceration programs for young offenders, in order to instill discipline and respect for authority; and (4) community policing initiatives to create police-community partnerships aimed at more efficient community problem solving in dealing with crime, violence, and drug abuse.

Two of these initiatives are purely reactive: they involve ways of responding to violent acts after they occur; two are more preventive in nature, attempting to prevent the initial occurrence of violent behavior. The primary justification for judicial waivers and boot camps is a "just desserts" philosophy, wherein youthful offenders need to be punished more severely for serious violent offenses. But there is no research evidence to suggest either strategy has any increased deterrent effect over processing these juveniles in the juvenile justice system or in traditional correctional settings. In fact, although the evidence is limited, it suggests the use of waivers and adult prisons results in longer processing time and longer pretrial detention, racial bias in the decision about which youth to transfer into the adult system, a lower probability of treatment or remediation while in custody, and an increased risk of repeated offending when released.[6] The research evidence on the effectiveness of community policing and gun control legislation is very limited and inconclusive. We have yet to determine if these strategies are effective in preventing violent behavior.

There are some genuine prevention efforts sponsored by federal and state governments, by private foundations, and by private businesses. At the federal level, the major initiative involves the Safe and Drug-Free Schools and Communities Act (1994). This act provided $630 million in federal grants during 1995 to the states to implement violence (and drug) prevention programs in and around schools. State Departments of Education and local school districts are currently developing guidelines and searching for violence prevention programs demonstrated to be effective. But there is no readily available compendium of effective programs described in sufficient detail to allow for an informed judgment about their relevance and cost for a specific local application. Under pressure to do something, schools have implemented whatever programs were readily available. As a result, most of the violence prevention programs currently being employed in the schools, e.g., conflict resolution, peer mediation, individual counseling, metal detectors, and locker searches and sweeps have either not been evaluated or the evaluations have failed to establish any significant, sustained deterrent effects.[7]

Nationally, we are investing far more resources in building and maintaining prisons than in primary prevention programs.[8] We have put more emphasis on reacting to violent offenders after the fact and investing in prisons to remove these young people from our communities, than on preventing our children from becoming violent offenders in the first place and retaining them in our communities as responsible, productive citizens. Of course, if we have no effective prevention strategies or programs, there is no choice.

This is the central issue facing the nation in 1998: *Can we prevent the onset of serious violent behavior?* If we cannot, then we have no choice but to build, fill, and maintain more prisons. Yet if we know how to prevent the onset of violence, can we mount an efficient and effective prevention

initiative? There is, in fact, considerable public support for violence prevention programming for our children and adolescents.[9] *How can we develop, promote, and sustain a violence prevention initiative in this country?*

Violence Prevention Programs—What Works?

Fortunately, we are past the "nothing has been demonstrated to work" era of program evaluation.[10] During the past five years more than a dozen scholarly reviews of delinquency, drug, and violence prevention programs have been published, all of which claim to identify programs that have been successful in deterring crime and violence.[11]

However, a careful review of these reports suggests some caution and a danger of *overstating* this claim. First, very few of these recommended programs involve reductions in violent behavior as the outcome criteria. For the most part, reductions in delinquent behavior or drug use *in general* or arrests/revocations for *any offense* have been used as the outcome criteria. This is probably not a serious threat to the claim that we have identified effective violence prevention programs, as research has established that delinquent acts, violence, and substance use are interrelated, and involvement in any one is associated with involvement in the others. Further, they have a common set of causes, and serious forms of violence typically occur later in the developmental progression, suggesting that a program that is effective in reducing earlier forms of delinquency or drug use should be effective in deterring serious violent offending.[12] Still, some caution is required, given that very few studies have actually demonstrated a deterrent or marginal deterrent effect for serious violent behavior.

Second, the methodological standards vary greatly across these reviews. A few actually score each program evaluation reviewed on its methodological rigor,[13] but for most the standards are variable and seldom made explicit. If the judgment on effectiveness were restricted to individual program evaluations employing true experimental designs and demonstrating statistically significant deterrent (or marginal deterrent) effects, the number of recommended programs would be cut by two-thirds or more. An experimental (or good quasi-experimental) design and statistically significant results should be minimum criteria for recommending program effectiveness. Further, very few of the programs recommended have been replicated at multiple sites or demonstrated that their deterrent effect has been sustained for some period of time *after* leaving the program, two additional criteria that are important. In a word, the standard for the claims of program effectiveness in these reviews is very *low*. Building a national violence prevention initiative on this collective set of recommended programs would be risky.

Blueprints for Violence Prevention

In 1996, the Center for the Study and Prevention of Violence at the University of Colorado at Boulder, working with William Woodward, Director of the Colorado Division of Criminal Justice (CDCJ), who played the primary role in securing funding from the Colorado Division of Criminal Justice, the Centers for Disease Control and Prevention, and the Pennsylvania Commission on Crime and Delinquency, initiated a project to identify ten violence prevention programs that met a very high scientific standard of program effectiveness—*programs that could provide an initial nucleus for a national violence prevention initiative*. Our objective was to identify truly outstanding programs, and to describe these interventions in a series of "Blueprints." Each Blueprint describes the

theoretical rationale for the intervention, the core components of the program as implemented, the evaluation designs and findings, and the practical experiences the program staff encountered while implementing the program at multiple sites. The Blueprints are designed to be very practical descriptions of effective programs which allow states, communities, and individual agencies to: (1) determine the appropriateness of each intervention for their state, community, or agency; (2) provide a realistic cost estimate for each intervention; (3) provide an assessment of the organizational capacity required to ensure its successful start-up and operation over time; and (4) give some indication of the potential barriers and obstacles that might be encountered when attempting to implement each type of intervention. In 1997, additional funding was obtained from the Division of Criminal Justice, allowing for the development of the ten Blueprint programs.

Blueprint Program Selection Criteria

In consultation with a distinguished Advisory Board,[14] we established the following set of evaluation standards for the selection of Blueprint programs: (1) an experimental design, (2) evidence of a statistically significant deterrent (or marginal deterrent) effect, (3) replication at multiple sites with demonstrated effects, and (4) evidence that the deterrent effect was sustained for at least one year post-treatment. This set of selection criteria establishes a very high standard, one that proved difficult to meet. But it reflects the level of confidence necessary if we are going to recommend that communities replicate these programs with reasonable assurances that they will prevent violence. Given the high standards set for program selection, the burden for communities mounting an expensive outcome evaluation to demonstrate their effectiveness is removed; this claim can be made as long as the program is implemented well. Documenting that a program is implemented well is relatively inexpensive, but critical to the claim that a program is effective.

Each of the four evaluation standards is described in more detail as follows:

1. Strong Research Design

Experimental designs with random assignment provide the greatest level of confidence in evaluation findings, and this is the type of design required to fully meet this Blueprint standard. Two other design elements are also considered essential for the judgment that the evaluation employed a strong research design: low rates of participant attrition and adequate measurement. Attrition may be indicative of problems in program implementation; it can compromise the integrity of the randomization process and the claim of experimental-control group equivalence. Measurement issues include the reliability and validity of study measures, including the outcome measure, and the quality, consistency, and timing of their administration to program participants.

2. Evidence of Significant Deterrence Effects

This is an obvious minimal criterion for claiming program effectiveness. As noted, relatively few programs have demonstrated effectiveness in reducing the onset, prevalence, or individual offending rates of *violent behavior*. We have accepted evidence of deterrent effects for delinquency (including childhood aggression and conduct disorder), drug use, and/or violence as evidence of program effectiveness. We also accepted program evaluations using arrests as the outcome measure. Evidence for a deterrent effect on violent behavior is certainly preferable, and programs demonstrating this effect were given preference in selection, all other criteria being equal.

Both primary and secondary prevention effects, i.e., reductions in the *onset* of violence, delinquency, or drug use compared to control groups and pre-post reductions in these *offending rates*, could meet this criterion. Demonstrated changes in the targeted risk and protective factors, in the absence of any evidence of changes in delinquency, drug use, or violence, was not considered adequate to meet this criterion.

3. Multiple Site Replication

Replication is an important element in establishing program effectiveness. It establishes the robustness of the program and its prevention effects; its exportability to new sites. This criterion is particularly relevant for selecting Blueprint programs for a national prevention initiative where it is no longer possible for a single program designer to maintain personal control over the implementation of his or her program. Adequate procedures for monitoring the quality of implementation must be in place, and this can be established only through actual experience with replications.

4. Sustained Effects

Many programs have demonstrated initial success in deterring delinquency, drug use, and violence during the course of treatment or over the period during which the intervention was being delivered and reinforcements controlled. This selection criterion requires that these short-term effects be sustained beyond treatment or participation in the designed intervention. For example, if a preschool program designed to offset the negative effects of poverty on school performance (which in turn effects school bonding, present and future opportunities, and later peer group choice/selection, which in turn predicts delinquency) demonstrates its effectiveness when children start school, but these effects are quickly lost during the first two to three years of school, there is little reason to expect this program will prevent the onset of violence during the junior or senior high school years when the risk of onset is at its peak. Unfortunately, there is clear evidence that the deterrent effects of most prevention programs deteriorate quickly once youth leave the program and return to their original neighborhoods, families, and peer groups or gangs.

Other Criteria

In the selection of model programs, we considered several additional factors. We looked for evidence that change in the targeted risk or protective factor(s) mediated the change in violent behavior. This evidence clearly strengthens the claim that participation in the program was responsible for the change in violent behavior, and it contributes to our theoretical understanding of the causal processes involved. We were surprised to discover that many programs reporting significant deterrent effects (main effects) had not collected the necessary data to do this analysis or, if they had the necessary data, had not reported on this analysis.

We also looked for cost data for each program as this is a critical element in any decision to replicate one of these Blueprint programs, and we wanted to include this information in each Blueprint. Evaluation reports, particularly those found in the professional journals, rarely report program costs. Even when asked to provide this information, many programs are unable (or unwilling) to provide the data. In many cases program costs are difficult to separate from research and evaluation costs. Further, when these data are available, they typically involve conditions or circumstances unique to a particular site and are difficult to generalize. There are no standardized cost criteria, and it is very

difficult to compare costs across programs. It is even more difficult to obtain reliable cost-benefit estimates. A few programs did report both program costs and cost-benefit estimates. There have been two recent cost-benefit studies involving Blueprint programs which suggest that these programs are cost-effective, but this information is simply not available for most programs.[15]

Finally, we considered each program's willingness to work with the Center in developing a Blueprint for national dissemination and the program's organizational capacity to provide technical assistance and monitoring of program implementation on the scale that would be required if the program was selected as a Blueprint program and became part of a national violence prevention initiative.

Programs must be willing to work with the Center in the development of the Blueprint. This involves a rigorous review of program evaluations with questions about details not covered in the available publications; the preparation of a draft Blueprint document following a standardized outline; attending a conference with program staff, staff from replication sites, and Center staff to review the draft document; and making revisions to the document as requested by Center staff. Each Blueprint is further reviewed at a second conference in which potential users—community development groups, prevention program staffs, agency heads, legislators, and private foundations—"field test" the document. They read each Blueprint document carefully and report on any difficulties in understanding what the program requires, and on what additional information they would like to have if they were making a decision to replicate the program. Based on this second conference, final revisions are made to the Blueprint document and it is sent back to the Program designer for final approval.

In addition, the Center will be offering technical assistance to sites interested in replicating a Blueprint program and will be monitoring the quality of program implementation at these sites (see the "Technical Assistance and Monitoring of Blueprint Replications" section below). This requires that each selected program work with the Center in screening potential replication sites, certifying persons qualified to deliver technical assistance for their program, delivering high quality technical assistance, and cooperating with the Center's monitoring and evaluation of the technical assistance delivered and the quality of implementation achieved at each replication site. Some programs are already organized and equipped to do this, with formal written guidelines for implementation, training manuals, instruments for monitoring implementation quality, and a staff trained to provide technical assistance; others have few or none of these resources or capabilities. Participation in the Blueprint project clearly involves a substantial demand on the programs. All ten programs selected have agreed to participate as a Blueprint program.

Blueprint Programs: An Overview

We began our search for Blueprint programs by examining the set of programs recommended in scholarly reviews. We have since expanded our search to a much broader set of programs and continue to look for programs that meet the selection standards set forth previously. To date, we have reviewed more than 450 delinquency, drug, and violence prevention programs. As noted, ten programs have been selected thus far, based upon a review and recommendation of the Advisory Board. These programs are identified in Table A.

The standard we have set for program selection is very high. Not all of the ten programs selected meet all of the four individual standards, but as a group they come the closest to meeting these standards that we could find. As indicated in Table A, with one exception they have all demonstrated significant deterrent

Table A. Blueprint Programs

PROJECT	TARGET POPULATION	EVID. OF EFFECT*	MULTI-SITE	COST/ BENEFIT	SUSTAINED EFFECT	GENERA-LIZABLE	TYPE OF PROGRAM
Nurse Home Visitation (Dr. David Olds)	Pregnant women at risk of preterm delivery and low birthweight	X	X	X	through age 15	X	Prenatal and postpartum nurse home visitation
Bullying Prevention Program (Dr. Dan Olweus)	Primary and secondary school children (universal intervention)	X	England, Canada; South Carolina		2 years post-treatment	Generality to U.S. unk.; initial S.C. results positive	School-based program to reduce victim/bully problems
Promoting Alternative Thinking Strategies (Dr. M. Greenberg and Dr. C. Kusche)	Primary school children (universal intervention)	X	X		2 years post-treatment	X	School-based program to promote emotional competence
Big Brothers Big Sisters of America (Ms. Dagmar McGill)	Youth 6 to 18 years of age from single-parent homes	X	Multisite single design, 8 sites			X	Mentoring program
Quantum Opportunities (Mr. Ben Lattimore)	At-risk, disadvantaged, high school youth	X	Multisite single design, 5 sites; replic. by D.O.L.	X	through age 20		Educational incentives
Multisystemic Therapy (Dr. Scott Henggeler)	Serious, violent, or substance abusing juvenile offenders and their families	X	X	X	4 years post-treatment	X	Family ecological systems approach
Functional Family Therapy (Dr. Jim Alexander)	Youth at risk for institutionalization	X	X	X	30 months posttreatment	X	Behavioral systems family therapy
Midwestern Prevention Project (Dr. Mary Ann Pentz)	Middle/junior school (6th/7th grade)	X	X		Through high school	X	Drug use prevention (social resistance skills); with parent, media, and community components
Life Skills Training (Dr. Gilbert Botvin)	Middle/junior school (6th/7th grade)	X	X		Through high school	X	Drug use prevention (social skills and general life skills training)
Multidimensional Treatment Foster Care (Dr. Paricia Chamberlain)	Serious and chronic delinquents	X	X	X	1 year post-treatment		Foster care with treatment

* "X" indicates the program met this criterion satisfactorily.

effects with experimental designs using random assignment to experimental and control groups (the Bullying Prevention Program involved a quasi-experimental design). All involve multiple sites and thus have information on replications and implementation quality, but not all replication sites have been evaluated as independent sites (e.g., the Big Brothers Big Sisters mentoring program was implemented at eight sites, but the evaluation was a single evaluation involving all eight sites in a single aggregated analysis). Again, with one exception (Big Brothers Big Sisters), all the selected programs have demonstrated sustained effects for at least one year post-treatment.

Technical Assistance and Monitoring of Blueprint Replications[16]

The Blueprint project includes plans for a technical assistance and monitoring component to assist interested communities, agencies, and organizations in their efforts to implement one or more of the Blueprint programs. *Communities should not attempt to replicate a Blueprint program without technical assistance from the program designers.* If funded, technical assistance for replication and program monitoring will be available through the Center for the Study and Prevention of Violence at a very modest cost. Technical assistance can also be obtained directly from the Blueprint programs with costs for consulting fees, travel, and manuals negotiated directly with each program.

There are three common problems encountered by communities when attempting to develop and implement violence prevention interventions. First, there is a need to identify the specific risk and protective factors to be addressed by the intervention and the most appropriate points of intervention to address these conditions. In some instances, communities have already completed a risk assessment and know their communities' major risk factors and in which context to best initiate an intervention. In other cases this has not been done and the community may require some assistance in completing this task. We anticipate working with communities and agencies to help them evaluate their needs and resources in order to select an appropriate Blueprint program to implement. This may involve some initial on-site work assisting the community in completing some type of risk assessment as a preparatory step to selecting a specific Blueprint program for implementation.

Second, assuming the community has identified the risk and protective factors they want to address, a critical problem is in locating prevention interventions which are *appropriate* to address these risk factors and making an informed decision about which one(s) to implement. Communities often become lost in the maze of programs claiming they are effective in changing identified risk factors and deterring violence. More often, they are faced with particular interest groups pushing their own programs or an individual on their advisory board recommending a pet project, with no factual information or evidence available to provide some rational comparison of available options. Communities often need assistance in making an informed selection of programs to implement.

Third, there are increasingly strong pressures from funders, whether the U.S. Congress, state legislatures, federal or state agencies, or private foundations and businesses, for accountability. The current trend is toward requiring *all* programs to be monitored and evaluated. This places a tremendous burden on most programs which do not have the financial resources or expertise to conduct a meaningful evaluation. A rigorous outcome evaluation typically would cost more than the annual operating budget of most prevention programs; the cumulative evaluations of our Blueprint programs, for example, average more than a million dollars each. The selection of a Blueprint program eliminates the need for an outcome evaluation, at least for an initial four or five years.[17] Because these programs have already been rigorously evaluated, the critical issue for a Blueprint program is

the *quality of the implementation*; if the program is implemented well, we can assume it is effective. To ensure a quality implementation, technical assistance and monitoring of the implementation (a process evaluation) are essential.

Limitations

Blueprint programs are presented as complete programs as it is the *program* that has been evaluated and demonstrated to work. Ideally, we would like to be able to present specific intervention components, e.g., academic tutoring, mentoring of at-risk youth, conflict resolution training, work experience, parent effectiveness training, etc., as proven intervention strategies based upon evaluations of many different programs using these components. We do not yet have the research evidence to support a claim that specific components are effective for specific populations under some specific set of conditions. Most of the Blueprint programs (and prevention programs generally) involve multiple components, and their evaluations do not establish the independent effects of each separate component, but only the combination of components as a single "package." It is the "package" which has been demonstrated to work for specific populations under given conditions. The claim that one is using an intervention that has been demonstrated to work applies only if the entire Blueprint program, as designed, implemented, and evaluated, is being replicated; this claim is not warranted if only some specific subcomponent is being implemented or if a similar intervention strategy is being used, but with different staff training, or different populations of at-risk youth, or some different combination of components. It is for this reason that we recommend that communities desiring to replicate one of the Blueprint programs contact this program or the Center for the Study and Prevention of Violence for technical assistance.

Our knowledge about these programs and the specific conditions under which they are effective will certainly change over time. Already there are extensions and modifications to these programs which are being implemented and carefully evaluated. Over the next three to five years it may be necessary to revise our Blueprint of a selected program. Those modifications currently underway typically involve new at-risk populations, changes in the delivery systems, changes in staff selection criteria and training, and in the quantity or intensity of the intervention delivered. Many of these changes are designed to reduce costs and increase the inclusiveness and generality of the program. It is possible that additional evaluations may undermine the claim that a particular Blueprint program is effective, however it is far more likely they will improve our understanding of the range of conditions and circumstances under which these programs are effective. In any event, we will continue to monitor the evaluations of these programs and make necessary revisions to their Blueprints. Most of these evaluations are funded at the federal level and they will provide ongoing evidence of the effectiveness of Blueprint programs, supporting (or not) the continued use of these programs without the need for local outcome evaluations.

The cost-benefit data presented in the Blueprints are those estimated by the respective programs. We have not undertaken an independent validation of these estimates and are not certifying their accuracy. Because they involve different comparison groups, different cost assumptions, and considerable local variation in costs for specific services, it is difficult to compare this aspect of one Blueprint program with another. Potential users should evaluate these claims carefully. We believe these cost-benefit estimates are useful, but they are not the most important consideration in selecting a violence prevention program or intervention.

It is important to note that the *size* of the deterrent effects of these Blueprint programs is modest. There are no "silver bullets," no programs that prevent the onset of violence for all youth participating in the intervention. Good prevention programs reduce the rates of violence by 30-40 percent.[18] We have included a section in each Blueprint presenting the evaluation results so that potential users can have some idea of how strong the program effect is likely to be and can prepare their communities for a realistic set of expectations. It is important that we not oversell violence prevention programs; it is also the case that programs with a 30 percent reduction in violence can have a fairly dramatic effect if sustained over a long period of time.

Finally, we are not recommending that communities invest all of their available resources in Blueprint programs. We need to develop and evaluate new programs to expand our knowledge of what works and to build an extensive repertoire of programs that work if we are ever to mount a comprehensive prevention initiative in this country. At the same time, given the costs of evaluating programs, it makes sense for communities to build their portfolio of programs around interventions that have been demonstrated to work, and to limit their investment in new programs to those they can evaluate carefully. Our Blueprint series is designed to help communities adopt this strategy.

Summary

As we approach the 21st Century, the nation is at a critical crossroad: Will we continue to react to youth violence after the fact, becoming increasingly punitive and locking more and more of our children in adult prisons? Or will we bring a more healthy balance to our justice system by designing and implementing an effective violence prevention initiative as a part of our overall approach to the violence problem? We do have a choice.

To mount an effective national violence prevention initiative in this country, we need to find and/or create effective violence prevention programs and implement them with integrity so that significant reductions in violent offending can be realized. We have identified a core set of programs that meet very high scientific standards for being effective prevention programs. These programs could constitute a core set of programs in a national violence prevention initiative. What remains is to ensure that communities know about these programs and, should they desire to replicate them, have assistance in implementing them as designed. That is our objective in presenting this series of *Blueprints for Violence Prevention*. They constitute a complete package of both programs and technical assistance made available to states, communities, schools, and local agencies attempting to address the problems of violence, crime, and substance abuse in their communities.

Delbert S. Elliot
Series Editor

ENDNOTES

1. Cook and Laub, 1997; Fox, 1996; and Snyder and Sickmund, 1995 for an analysis of trends in juvenile arrests for violent crimes.

2. Lipsey, 1992, 1997; Sherman et al., 1997; and Tolan and Guerra, 1994.

3. The technical definition of a protective factor is an attribute or condition that buffers one from the expected effect of one or more risk factors, but many use the term more generally to refer to anything that reduces the likelihood of violence, whether that effect is direct or indirect.

4. Maguire and Pastore, 1996.

5. Johnston et al., 1996.

6. Fagan, 1996; Frazier, Bishop and Lanza-Kaduce, 1997; Lipsey, 1997; MacKenzie et al., 1992; Podkopaz and Feld, 1996; and Shaw and McKenzie, 1992.

7. Gottfredson, 1997; Lipsey, 1992; Sherman et al., 1997; Tolan and Guerra, 1994; and Webster, 1993.

8. Gottfredson, 1997.

9. Gallop, 1994.

10. Lipton, Martinson, and Wilks, 1975; Martinson, 1974; Sechrest et al., 1979; and Wright and Dixon, 1977.

11. Davis and Tolan, 1993; Dusenbury and Falco, 1995; Farrington, 1994; Greenwood et al., 1996; Hawkins, Catalano and Miller, 1992; Howell, 1995; Howell et al., 1995; Krisberg and Onek, 1994; Lipsey and Wilson, 1997; Loeber and Farrington, 1997; McGuire, 1995; National Research Council, 1993; Office of Juvenile Justice and Delinquency Prevention, 1995; Powell and Hawkins, 1996; Sherman et al., 1997; and Tolan and Guerra, 1994.

12. Elliott, 1993, 1994; Jessor and Jessor, 1977; Kandel et al., 1986; Osgood et al., 1988; and White et al., 1985.

13. Gottfredson, 1997; Lipsey, 1992; Osgood et al., 1988; and Sherman et al., 1997.

14. Advisory Board members included: Denise Gottfredson, University of Maryland; Mark Lipsey, Vanderbilt University; Hope Hill, Howard University; Peter Greenwood, the Rand Corporation; and Patrick Tolan, University of Illinois.

15. Greenwood, Model, Rydell, and Chiesa, 1996; Washington State Institute for Public Policy, 1998.

16. The Center has submitted a proposal to the Office of Juvenile Justice and Delinquency Prevention that would provide technical assistance and evaluation of program implementation for 50 replications of Blueprint programs.

17. At some point it will be necessary to reassess each Blueprint program to ensure that it continues to demonstrate deterrent effects and to test its generalizability to other populations and community conditions. In many cases, this will be done at the national level with federal support for large scale evaluations. For example, the U.S. Department of Labor and the Ford Foundation are currently funding seven Quantum Opportunity Programs with outcome evaluations; and the Office of Juvenile Justice and Delinquency Prevention is funding several Big Brothers Big Sisters Programs with evaluations. Local agencies replicating these Blueprint programs may never have to conduct rigorous outcome evaluations, but some continuing outcome evaluations at some level (national or local) is essential.

18. See Lipsey, 1992, 1997, for a review of issues and problems in estimating effect sizes and the range of effect sizes observed for delinquency prevention programs.

Model Program Descriptions

MODEL PROGRAM DESCRIPTIONS

Prenatal and Infancy Home Visitation by Nurses

Nurse home visitation is a program that sends nurses to the homes of pregnant women who are predisposed to infant health and developmental problems (i.e., at risk of preterm delivery and low-birth weight children). The goal of the program is to improve parent and child outcomes. Home visiting promotes the physical, cognitive, and social-emotional development of the children, and provides general support as well as instructive parenting skills to the parents. Treatment begins during pregnancy, with an average of eight visits for about 1 hour and 15 minutes, and continues to 24 months postpartum with visits diminishing in frequency to approximately every six weeks. Screenings and transportation to local clinics and offices are also offered as a part of treatment. Nurse home visiting has had some positive outcomes on obstetrical health, psychosocial functioning, and other health-related behaviors (especially reductions in smoking). Child abuse and neglect was lower and the developmental quotients of children at 12 and 24 months were higher in the treatment group than in the control group for poor, unmarried teens. Follow-up at 15-years postpartum showed significant enduring effects on child abuse and neglect, completed family size, welfare dependence, behavior problems due to substance abuse, and criminal behavior on the part of low income, unmarried mothers. Positive program effects through the child's second birthday have been replicated in a major urban area.

Bullying Prevention Program

The anti-bullying program has as its major goal the reduction of victim/bully problems among primary and secondary school children. It aims to increase awareness of the problem and knowledge about it, to achieve active involvement on the part of teachers and parents, to develop clear rules against bullying behavior, and to provide support and protection for the victims of bullying. Intervention occurs at the school level, class level, and individual level. In Bergen, Norway, the frequency of bully/victim problems decreased by 50 percent or more in the two years following the campaign. These results applied to both boys and girls and to students across all grades studied. In addition, school climate improved, and antisocial behavior in general such as theft, vandalism, and truancy showed a drop during these years.

Promoting Alternative Thinking Strategies

Promoting Alternative Thinking Strategies (PATHS) is a school-based intervention designed to promote emotional competence, including the expression, understanding, and regulation of emotions. The PATHS program is a universal intervention, implemented by teachers (after a three-day training workshop) with entire classrooms of children from kindergarten through fifth grades. The curriculum includes a feelings unit (with a self-control and initial problem-solving skills program within that unit) and an interpersonal cognitive problem solving unit. The generalization of those learned skills to children's everyday lives is a component of each major unit. An additional unit on self-control and readiness is provided for special needs classrooms. Studies have compared classrooms receiving the intervention to matched controls using populations of normally-adjusted students, behaviorally at-risk students, and deaf students. Program effects included teacher-, child sociometric-, and child self-report ratings of behavior change on such constructs as hyperactivity, peer aggression, and conduct problems.

Big Brothers Big Sisters of America

Big Brothers Big Sisters of America (BBBSA) is the oldest and best known mentoring program in the United States. Local programs are autonomously funded affiliates of BBBSA, with the national office in Philadelphia. The more than 500 affiliates maintain over 100,000 one-to-one relationships between a volunteer adult and a youth. Matches are carefully made using established procedures and criteria. The program serves children 6 to 18 years of age, with the largest portion being those 10 to 14 years of age. A significant number of the children are from disadvantaged single-parent households. A mentor meets with his/her youth partner at least three times a month for three to five hours. The visits encourage the development of a caring relationship between the matched pair. An 18 month study of eight BBBS affiliates found that the youth in the mentoring program, compared to a control group who were on a waiting list for a match, were less likely to start using drugs and alcohol, less likely to hit someone, had improved school attendance, attitudes and performance, and had improved peer and family relationships.

Quantum Opportunities

The Quantum Opportunities Program (QOP) provides education, development, and service activities, coupled with a sustained relationship with a peer group and a caring adult, over the four years of high school for small groups of disadvantaged teens. The goal of the program is to help high risk youth from poor families and neighborhoods to graduate from high school and attend college. The program includes (1) 250 hours per year of self-paced and competency-based basic skills, taught outside of regular school hours; (2) 250 hours per year of development opportunities, including cultural enrichment and personal development; and (3) 250 hours per year of service opportunities to their communities to help develop the prerequisite work skills. Financial incentives are offered to increase participation, completion, and long range planning. Results from the pilot test of this program indicated that QOP participants, compared to the control group, were less likely to be arrested during the juvenile years, were more likely to have graduated from high school, to be enrolled in higher education or training, planning to complete four years of college, and less likely to become a teen parent.

Multisystemic Therapy

Multisystemic Therapy (MST) views individuals as being nested within a complex of interconnected systems that encompass individual, family, and extrafamilial (peer, school, neighborhood) factors. Behavior problems can be maintained by problematic transactions within or between any one or a combination of these systems. MST targets the specific factors in each youth's and family's ecology (family, peer, school, neighborhood, support network) that are contributing to antisocial behavior. MST interventions are pragmatic, goal oriented, and emphasize the development of family strengths. The overriding purpose of MST is to help parents to deal effectively with their youth's behavior problems, including disengagement from deviant peers and poor school performance. To accomplish the goal of family empowerment, MST also addresses identified barriers to effective parenting (e.g., parental drug abuse, parental mental health problems) and helps family members to build an indigenous social support network (e.g., with friends, extended family, neighborhoods, church members). To increase family collaboration and treatment generalization, MST is typically provided in the home, school, and other community locations by master's level counselors with low caseloads and 24 hours/day, seven days/week availability. The average duration of treatment is

about four months, which includes approximately 50 hours of face-to-face therapist-family contact. MST has been demonstrated as an effective treatment for decreasing the antisocial behavior of violent and chronic juvenile offenders at a cost savings—that is, reducing long-term rates of rearrest and out-of-home placement. Moreover, families receiving MST have shown extensive improvements in family functioning.

Functional Family Therapy

Functional Family Therapy (FFT) is a short term, easily trainable, well documented program which has been applied successfully to a wide range of problem youth and their families in various contexts (e.g., rural, urban, multicultural, international) and treatment systems (e.g., clinics, home-based programs, juvenile courts, independent providers, federally funded clinical trials). Success has been demonstrated and replicated for over 25 years with a wide range of interventionists, including paraprofessionals and trainees representing the various professional degrees (e.g., B.S.W., M.S.W., Ph.D., M.D., R.N., M.F.T.). The program involves specific phases and techniques designed to engage and motivate youth and families, and especially deal with the intense negative affect (hopelessness, anger) that prevents change. Additional phases and techniques then change youth and family communication, interaction, and problem solving, then help families better deal with and utilize outside system resources. Controlled comparison studies with follow-up periods of one, three, and even five years have demonstrated significant and long-term reductions in youth re-offending and sibling entry into high-risk behaviors. Comparative cost figures demonstrate very large reductions in daily program costs compared to other treatment programs.

Midwestern Prevention Project

The Midwestern Prevention Project is a comprehensive population-based drug abuse (cigarettes, alcohol, and marijuana) prevention program that has operated in two major Midwestern SMSAs, Kansas City and Indianapolis, where it has been known locally as Project STAR (Students Taught Awareness and Resistance) and I-STAR, respectively. The goal of the program is to decrease the rates of onset and prevalence of drug use in young adolescents (ages 10-15), and to decrease drug use among parents and other residents of the two communities. The program consists of five intervention strategies designed to combat the community influences on drug use: mass media, school, parent, community organization, and health policy change. The components focus on promoting drug use resistance and counteraction skills by adolescents (direct skills training), prevention practices and support of adolescent prevention practices by parents and other adults (indirect skills training), and dissemination and support of non-drug use social norms and expectations in the community (environmental support). This program has been effective at reducing alcohol, cigarette, and marijuana use among young adolescents, with some effects maintained up to age 23.

Life Skills Training

Life Skills Training is a drug use primary prevention program (cigarettes, alcohol, and marijuana), which provides general life skills training and social resistance skills training to junior high/middle (6th or 7th grade) school students. The curriculum includes 15 sessions taught in school by regular classroom teachers with booster sessions provided in year two (10 class sessions) and year three (five class sessions). The three basic components of the program include: (1) Personal Self-Management Skills (e.g., decision-making and problem-solving, self-control skills for coping with anxi-

ety, and self-improvement skills); (2) Social Skills (e.g. communication and general social skills); and (3) Drug-Related Information and Skills designed to impact on knowledge and attitudes concerning drug use, normative expectations, and skills for resisting drug use influences from the media and peers. Life Skills Training has been effective at reducing alcohol, cigarette, and marijuana use among young adolescents. The effects for tobacco and heavy alcohol use have been sustained through the end of high school.

Multidimensional Treatment Foster Care

Social learning-based Multidimensional Treatment Foster Care (MTFC) is a cost effective alternative to residential treatment for adolescents who have problems with chronic delinquency and antisocial behavior. Community families are recruited, trained, and closely supervised to provide MTFC placements, treatment, and supervision to participating adolescents. MTFC parent training emphasizes behavior management methods to provide youth with a structured and therapeutic living environment. After completing a preservice training, MTFC parents attend a weekly group meeting run by a program case manager where ongoing supervision is provided. Supervision and support is also given to MTFC parents during daily telephone calls to check on youths' progress. Family therapy is provided for the youths' biological (or adoptive) families. The parents are taught to use the structured system that is being used in the MTFC home. The effectiveness of the MTFC model has been evaluated, and MTFC youth had significantly fewer arrests during a 12-month follow-up than a control group of youth who participated in residential group care programs. The MTFC model has also been shown to be effective for children and adolescents leaving state mental hospital settings.

Blueprints

Program Overview

PROMOTING ALTERNATIVE THINKING STRATEGIES

Program Overview

The PATHS (Promoting Alternative THinking Strategies) Curriculum is a comprehensive program for promoting emotional and social competencies and reducing aggression and behavior problems in elementary school-aged children while simultaneously enhancing the educational process in the classroom. This innovative curriculum is designed to be used by educators and counselors in a multi-year, universal prevention model. Although primarily focused on the school and classroom settings, information and activities are also included for use with parents.

Program Targets:

The PATHS Curriculum was developed for use in the classroom setting with all elementary school aged-children. PATHS has been field-tested and researched with children in regular education classroom settings, as well as with a variety of special needs students (deaf, hearing-impaired, learning disabled, emotionally disturbed, mildly mentally delayed, and gifted). Ideally it should be initiated at the entrance to schooling and continue through Grade 5.

Program Content:

The PATHS Curriculum, taught three times per week for a minimum of 20-30 minutes per day, provides teachers with systematic, developmentally-based lessons, materials, and instructions for teaching their students emotional literacy, self-control, social competence, positive peer relations, and interpersonal problem-solving skills. A key objective of promoting these developmental skills is to prevent or reduce behavioral and emotional problems. PATHS lessons include instruction in identifying and labeling feelings, expressing feelings, assessing the intensity of feelings, managing feelings, understanding the difference between feelings and behaviors, delaying gratification, controlling impulses, reducing stress, self-talk, reading and interpreting social cues, understanding the perspectives of others, using steps for problem-solving and decision-making, having a positive attitude toward life, self-awareness, nonverbal communication skills, and verbal communication skills (Goleman, 1995). Teachers receive training in a two- to three-day workshop and in bi-weekly meetings with the curriculum consultant.

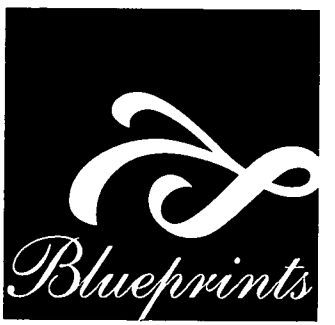
Program Outcomes:

The PATHS Curriculum has been shown to improve protective factors and reduce behavioral risk factors. Evaluations have demonstrated significant improvements for program youth (regular education, special needs, and deaf) compared to control youth in the following areas:

- Improved self-control
- Improved understanding and recognition of emotions
- Increased ability to tolerate frustration
- Use of more effective conflict-resolution strategies
- Improved thinking and planning skills
- Decreased anxiety/depressive symptoms (teacher report of special needs students)
- Decreased conduct problems (teacher report of special needs students)
- Decreased symptoms of sadness and depression (child report – special needs)
- Decreased report of conduct problems, including aggression (child report)

Program Costs:

Program costs over a three-year period would range from $15/student/year to $45/student/year. The higher cost would include hiring an on-site coordinator, the lower cost would include redeploying current staff.



CHAPTER ONE
Executive Summary

EXECUTIVE SUMMARY

Background

The PATHS (Promoting Alternative THinking Strategies) Curriculum was developed to fill the need for a comprehensive, developmentally-based curriculum intended to promote social and emotional competence and prevent or reduce behavior and emotional problems. From its inception, the goal of PATHS was focused on prevention through the development of essential developmental skills in emotional literacy, positive peer relations, and problem-solving. The Curriculum (Kusché & Greenberg, 1994) is designed to be taught by elementary school teachers from grade K through grade 5.

Two decades of prior research had indicated an increasing emphasis on the need for universal, school-based curricula for the purposes of both promoting emotional competence and decreasing risk factors related to later maladjustment. However, although previous research has suggested that such approaches might be especially effective during the elementary school years, most evaluations had been restricted in scope and/or had involved programs with considerable limitations (e.g., narrow developmental focus, short duration, and unreliable and invalid outcome measures). Extensive focus on teaching emotional competency, understanding, and awareness was notably lacking, and comprehensive evaluations and inclusive programs were rare. These shortcomings were surprising, given the wide range of curricula utilized in elementary education that were intended to promote social competence and prevent disorder. Nevertheless, research strongly suggested that a comprehensive prevention program in the classroom setting had the potential to provide much needed assistance for both normally-adjusted and behaviorally at-risk students.

In addition, we believed that the rapid and complex cultural changes of the past few decades, as well as those predicted for the foreseeable future, made emotional and social competency crucial requirements for adaptive and successful functioning of children and for their continuing adaptation as adolescents and adults. Although social and emotional competence had never been considered a necessary component of education in the past, we felt that it had become as critical for the basic knowledge repertoire of all children as reading, writing, and arithmetic. Teachers acknowledged that they had little background or established strategies to deal with emotional and social competency, so we felt that it was necessary to provide detailed lessons, as well as materials and instruction.

As with many of the more recent school-based preventive interventions, PATHS was designed to be taught by regular classroom teachers (initially with support from project staff) as an integrated component of the regular year-long curriculum. However, it is important to ensure that children generalize (i.e., apply the skills to new contexts) the use of PATHS skills to the remainder of the day and to other contexts. Thus, generalization activities and strategies were incorporated to be used in (and outside of) the classroom throughout each school day, and materials were included for use with parents.

More recent literature reviews have indicated that successful programs have the following characteristics: (a) utilizing a program of longer duration, (b) synthesizing a number of successful approaches, (c) incorporating a developmental model, (d) providing greater focus on the role of emotions and emotional development, (e) providing increased emphasis on generalization techniques, (f) providing ongoing training and support for implementation, and (g) utilizing multiple measures and follow-ups for assessing program effectiveness.

All seven of these under-emphasized but critical factors have been incorporated into the PATHS curriculum. Furthermore, as PATHS has been utilized with different cohorts and populations over the past 15 years, multiple field-tests with extensive feedback from teachers has led to expansion and improvement in PATHS over time.

Theoretical Rationale/Conceptual Framework

The PATHS prevention-intervention program is based on five conceptual models. The first, the ABCD (Affective-Behavioral-Cognitive-Dynamic) Model of Development focuses on the promotion of optimal developmental growth for each individual. The second model incorporates an eco-behavioral systems orientation and emphasizes the manner in which the teacher uses the curriculum model and generalizes the skills to build a healthy classroom atmosphere (i.e., one that supports the children's use and internalization of the material they have been taught). The third model involves the domains of neurobiology and brain structuralization/organization, while the fourth paradigm involves psychodynamic education (derived from Developmental Psychodynamic Theory). Finally, the fifth model includes psychological issues related to emotional awareness, or as it is more popularly labeled, emotional intelligence.

The ABCD Model

The ABCD model incorporates aspects of diverse theories of human development including psychodynamic developmental theory, developmental social cognition, cognitive developmental theory, cognitive social-learning theory, and attachment theory. The ABCD model places primary importance on the *developmental* integration of affect (i.e., emotion, feeling, mood) and emotion language, behavior, and cognitive understanding to promote social and emotional competence. A basic premise is that a child's coping, as reflected in his or her behavior and internal regulation, is a function of emotional awareness, affective-cognitive control, and social-cognitive understanding. Implicit in the ABCD model is the idea that during the maturational process, emotional development precedes most forms of cognition. That is, young children experience emotions and react on an emotional level long before they can verbalize their experiences. In early life, affective development is an important precursor of other ways of thinking and later needs to be integrated with cognitive and linguistic abilities, which are slower to develop. Table 1 presents a summary of stages in the ABCD Model (See Greenberg & Kusché, 1993 for elaboration).

The ABCD model places primary importance on the developmental integration of affect (i.e., emotion, feeling, mood) and emotion language, behavior, and cognitive understanding to promote social and emotional competence.

During the first three years of life, the entire repertoire of emotional signals develops, and these signals/displays are subsequently used throughout the rest of an individual's lifetime. Thus, by the time children are beginning to utilize language fluently to express internal states of being (e.g., feeling sad, happy, jealous), most of their emotional responses have already become habitual.

By the end of the preschool years, most children have become skilled in both showing and interpreting emotional displays, although there are considerable individual differences in children's emo-

tional profiles. The child also begins to demonstrate affective perspective-taking skills (i.e., the ability to differentiate the emotions, needs, and desires of different people in a particular context). The preschooler gradually finds new ways to cope with unpleasant emotions and discovers that internally experienced affects can be directly shared with others through verbal means. Furthermore, the child begins to regulate internal affective states through verbal self-regulation, a critical developmental achievement. An example of this ability is when a preschooler is able to tell someone he is angry instead of showing aggression towards a peer or object.

Between the ages of 5 and 7, children undergo a major developmental transformation that generally includes increases in cognitive processing skills, as well as changes in brain size and function. This transition and the accompanying alterations allow children to undertake major changes in responsibilities, independence, and social roles.

During the elementary school years, further developmental integrations occur between affect, behavior, and cognition/language. This integration is of crucial importance in achieving socially competent action and healthy peer relations. For example, in the early elementary years when a child has been rebuffed when attempting to enter a game with peers, she might walk away, calm down, assess how both she and the other kids feel, and think of another strategy to enter the game, or think of something else to do or someone else with whom she can play.

Although research has demonstrated the linkage between deficits in emotional development and psychopathology, surprisingly little attention has been paid to the crucial role of emotional development in models of preventive intervention. Taking this factor into account, the PATHS Curriculum model synthesizes the domains of self-control, emotional awareness and understanding, and social problem-solving to increase social and emotional competence.

Table 1

ABCD Model

(Affective-Behavioral-Cognitive-Developmental)

Stages of Developmental Integration

1. Infancy (Birth to 18 months)

   Emotion = Communication
   Arousal and Desire = Behavior

2. Toddlerhood (18 months to 36 months)

   Language Supplements Emotion = Communication
   Very Initial Development of Emotional Labeling
   Arousal and Desire = Behavior

3. Preschool Years (3 to 6 years)

   Language Develops Powerful Role in Communication
   Child can Recognize/Label Basic Emotions
   Arousal and Desire > Symbolic Mediation > Behavior
   Development of Role-taking Abilities
   Beginning of Reflective Social Planning Problem-Solving
   (Generation of Alternative Plans for Behavior)

4. School Years (6 to 12-13 years)

   Thinking in Language has become Habitual
   Increasing Ability to Reflect on and Plan Sequences of Action
   Developing Ability to Consider Multiple Consequences of Action
   Increasing Ability to Take Multiple Perspectives on a Situation

5. Adolescence
   Utilize Language in the Service of Hypothetical Thought
   Ability to Simultaneously Consider Multiple Perspectives

The Eco-Behavioral Systems Model

The second conceptual model incorporates an eco-behavioral systems orientation and examines learning primarily at the level of systems change. School-based programs that focus independently on the child or environment are not as effective as those that simultaneously educate the child and instill positive changes in the environment. Training programs may appropriately be considered person-centered when skills are taught in the absence of creating environmental supports for continued skill application in daily interactions. In contrast, ecologically oriented programs emphasize not only the teaching of skills, but also the creation of meaningful real-life opportunities to use skills and the establishment of structures to provide reinforcement for effective skill application. Thus, although a central goal of PATHS is to promote the developmental skills of each child by providing learning that integrates affect, cognition, and behavior, a critical ingredient for success is the development of a healthy classroom and school environment.

From this perspective, the success of skills training programs may depend largely on their attention to encouraging and supporting socialization patterns and supports in the intervention setting. For example, ecologically oriented problem-solving programs try to introduce a common social information processing framework that children and teachers can use to communicate more effectively about problem situations. In other words, they try to change not only the child's behavior, but also the teacher's behavior, the relationship between the teacher and child, and classroom and school-level resources and procedures to support adaptive problem-solving efforts, assuming that the interactions are dysfunctional or ineffective.

Eco-Behavioral Systems Model:

Ecologically oriented programs emphasize not only the teaching of skills, but also the creation of meaningful real-life opportunities to use skills and the establishment of structures to provide reinforcement for effective skill application.

The generalization procedures, extensive teacher training, and focus on some level of parent participation used in PATHS have the goal of combining classroom instruction with efforts to create environmental support and reinforcement from peers, family members, school personnel health professionals, and other concerned community members. Further, training emphasizes the manner in which the teacher uses the curriculum model and generalizes the skills to build a healthy classroom atmosphere (i.e., one that supports the children's use and internalization of the material they have been taught).

Neurobiology and Brain Structuralization/Organization

When designing PATHS, we paid special attention to developmental models of brain organization. Two of the most relevant concepts we incorporated involve "vertical" control and "horizontal" communication (Kusché, 1984).

"Vertical" control refers to higher-order processing and regulation of emotion and actions by the frontal lobes over the limbic system and sensory-motor areas. When adults first experience emotional information, it is rapidly perceived and processed in the limbic system in the middle part of the brain. This initial information is then transmitted to the frontal lobes in the neocortex for further processing and interpretation, and, subsequently, the frontal lobes can transmit messages back to the limbic system to modify emotion signals and to the sensory-motor cortex to influence potential actions.

Developmental Neurological Theory I:

Vertical communication between the limbic system and the frontal lobes indicates that teaching children to develop verbally-mediated strategies for self-control should facilitate the development of improved impulse control.

For example, if you saw a car coming towards you and you startled and jumped to the side of the road, all of this rapid processing would have occurred primarily in the limbic system without any true conscious awareness on your part. Afterwards, however, you would take in and process further information at a cortical level (e.g., the thought, "That car almost hit me!"; the color of the car; the license plate number, etc.). In addition to the initial fear, you would probably start to feel angry, as well as relieved, and you might decide to report the incident to the police. Rapid primary processing is sometimes crucial for survival, as in this case, but secondary processing in the frontal cortex is important because it allows us to integrate data involving emotions with knowledge-based information, which, in turn, assists with making appropriate plans for further action.

Early in development (i.e., by the time of toddlerhood), there are few interconnections between the limbic system and the frontal lobes; thus, during the "terrible-twos," children frequently hit, bite, or kick "automatically" when they feel angry. As children mature, however, increasing neuronal interconnections evolve between the frontal lobes and the limbic system. This is especially important with regard to the development of self control, because the frontal cortex becomes increasingly able to regulate impulses from the limbic areas and modify potential actions. Between the ages of 5 and 7, a major shift occurs in which networks in the frontal areas achieve significant dominance with regard to exerting emotional self-regulation and behavioral self-control.

However, these developmental milestones do not automatically unfold, but rather are heavily influenced by environmental input throughout early childhood. Moreover, if these networks do not develop in an optimal manner, children will not have the neuronal structure necessary to control their actions in response to strong emotional signals.

Thus, in order to promote the development of executive or vertical control with PATHS, we teach children to practice conscious strategies for self-control, including self-talk (i.e., verbal mediation and the Control Signals Poster). For younger children and those with either delayed language or difficulties in behavioral and emotional control, we utilize the "Turtle Technique," which includes a motor-inhibiting response in addition to self-talk.

"Horizontal" communication refers to a phenomenon that results from the asymmetry of information processing in the two halves of the neocortex (the outermost and evolutionarily newer part of the brain). The left hemisphere is responsible for processing receptive and expressive language as well as expressing positive affect. The right hemisphere is specialized for processing both comfortable and uncomfortable receptive affect and uncomfortable expressive affect in the majority of English-speaking adults, the only cultural group on which research is available (Bryden & Ley, 1983).

Developmental Neurological Theory II:

Horizontal communication between the left and right hemishperes indicates that verbal identification and labeling of emotions should assist in the management of emotions and behavioral control.

Nonlinguistic information (such as emotional signals) is often processed without awareness (preconscious processing) unless we verbally "think" about it. To verbally label our emotional experiences, and thus become consciously aware of them, this information must be transmitted to the left hemisphere. However, the left and right hemispheres can communicate with one another only via the corpus callosum, a "bridge" that horizontally connects the two sides of the brain. Therefore, in order to be truly aware of our emotional experiences, we must utilize both the right and left hemispheres. The language areas on the left side of the brain can also modify and influence affective processing in the right (Davidson, 1998; Sutton & Davidson, 1997).

An interesting situation occurs if, for some reason, emotion information does not reach the left hemisphere (e.g., an adequate neural network has never developed or interconnections are blocked from intercommunication). When this occurs, an individual will experience emotion, but will not be aware of having done so. Thus, other people can be aware of how the person feels (i.e., by observing facial cues), but the individual will not be aware of having experienced the feelings. A frequent illustration of this phenomenon occurs when a teacher observes a child who is clearly feeling angry, but that child truly has no conscious awareness of such an emotion ("I am not angry; I feel fine").

Development of the corpus callosum is relatively slow, so that it is only with maturation that optimum hemispheric communication is possible. As with vertical neural networks, the way in which interhemispheric communication occurs depends heavily on environmental input during development.

Based on this theory of "horizontal" communication and control, we hypothesized that verbal identification and labeling, especially of uncomfortable feelings, would powerfully assist with managing these feelings, controlling behavior, and improving hemispheric integration. Thus, we stress the use of Feeling Face cards that include both the facial drawing of each affect (recognition of which is mediated by the right hemisphere) and its printed label (which is mediated by the left). In addition, we also utilize a color-coded differentiation of comfortable (yellow) versus uncomfortable (blue) feelings. In addition, encouraging children to talk about emotional experiences (both at the time they are occurring and in recollection) further strengthens neural integration.

In summary, our knowledge of the neurobiological development of the brain was heavily influential in the development of PATHS. Research strongly suggests that learning experiences in the context of meaningful relationships during childhood influence the development of neural networks between different areas of the brain, which in turn affect self-control and emotional awareness. Thus, we incorporated strategies in PATHS to optimize the nature and quality of teacher-child and peer-peer interactions that are likely to impact brain development as well as learning (Greenberg & Snell, 1997). Optimum development of both "vertical" and "horizontal" communication and control during childhood should promote better adaptation in both current and later life.

Psychodynamic Education

The application of psychoanalytic theory to the education of children has only recently received significant attention. Psychodynamic education is intended to enhance developmental growth, promote mental health, and prevent emotional distress, but it is not treatment. In this regard, teachers are not therapists and are not expected to act as such. However, teachers are powerful role models (individuals with whom children can identify in a positive manner), and the information they impart is often given the status of absolute truth (i.e., omniscience), especially during the elementary school-

age years. When teachers express an interest in children's feelings and emotional experiences or show respect for children's opinions, their students are impacted in a profound manner. As the teacher-student relationships grow increasingly more positive and enriched, learning is enhanced.

Psychodynamic Education

aims to coordinate social, emotional, and cognitive growth and emphasizes the process of internalization.

Psychodynamic education is derived from a developmental theory and aims to coordinate social, emotional, and cognitive growth. Teachers are encouraged to utilize actual classroom experiences and use children's creative, imaginal processes. Students can then develop a healthy sense of self-esteem from observing the positive reactions of others towards them, not because they have been encouraged to parrot simplistic affirmations. Further, teachers play a crucial role by providing clarifications and explanations of emotions and situations.

An important way in which psychodynamic education differs from other models is its emphasis on internalization, the process of healthy development of conscience, or "taking ownership" and self-responsibility for one's actions. By promoting the development of internal self-control and self-motivation along with healthy standards for behavior, children develop an optimal sense of autonomy and decision-making while also considering the needs and feelings of others. For example, students contemplate and discuss the consequences of having good vs. bad manners and evaluate why good manners are important (e.g., the way we act affects how other people feel), rather than simply being taught a list of good manners that they are supposed to use. In this way, the children come to "own" the concepts as belonging to themselves (i.e., they internalize them); as a result, they voluntarily choose to use good manners because they believe it is the right thing to do.

In summary, some of the long-range goals of psychodynamic education are for each child to develop a kind but fair sense of prosocial behavioral control, positive sense of self, respect for self and others, healthy internal motivation, curiosity and love for learning, and so on that operate independently of the external environment. These factors enhance developmental growth, improve school functioning, and optimize mental health, while preventing antisocial tendencies, violent behavior, and substance abuse.

Psychological Issues Related to the Crucial Role of Emotional Awareness

Research suggests that as children develop more complex and accurate plans and strategies regarding emotions, these plans have a major influence on their social behavior. For example, the ability to think through problem situations and to anticipate their occurrence is critical for socially competent behavior. However, these "cold" cognitive processes are unlikely to be effectively utilized in real world conditions (e.g., when being teased) unless the child can both accurately process the emotional content of the situation and effectively regulate his or her emotional arousal so that he and she can think through the problem.

Similarly, if children misidentify their own feelings or those of others, they are likely to generate maladaptive solutions to a problem, regardless of their intellectual capacities. In addition to these types of challenges, the child's motivation to discuss these feelings and problem-solve in interpersonal contexts will also be greatly impacted by the modeling and reinforcement of adults and peers.

Emotional awareness and understanding are implicit in many models that have been developed to promote social competence, but have rarely been a central focus, even though numerous studies have assessed social problem-solving ability as both a mediator and outcome of intervention.

Recently, emotional competence has been subsumed under a new, more popular term, emotional intelligence (Goleman, 1995; Mayer & Salovey, 1997), defined as the ability to recognize emotional responses in oneself, other people, and situations, and use this knowledge in effective ways (e.g., in managing one's own emotional responses, motivating oneself, and handling relationships effectively). "Self-awareness—recognizing a feeling *as it happens*—is the keystone of emotional intelligence....[T]he ability to monitor feelings from moment to moment is [also] crucial to psychological insight and self-understanding. An inability to notice our true feelings leaves us at their mercy. People with greater certainty about their feelings are better pilots of their lives" (Goleman, 1995, p. 43). Thus, it has been proposed that emotional intelligence may be more important than cognitive intelligence in achieving success and happiness in life.

As such, a central focus of PATHS is encouraging children to discuss feelings, experiences, opinions, and needs that are personally meaningful, and making them feel listened to, supported, and respected by both teachers and peers. As a result, the internalization of feeling valued, cared for, appreciated, and part of a social group is facilitated, which, in turn, motivates children to value, care for, and appreciate themselves, their environment, their social groups, other people, and their world.

Emotional Awareness:

When children feel listened to, respected, and nurtured by the adults around them, they learn to respect others, as well as themselves.

This focus cannot be emphasized enough. Although all children need to feel listened to or respected by others, especially adults, many children do not have an adult role model who will support them in this manner; hence, they do not learn to respect themselves or others. These aspects of socialization must be taught to children, and to become truly socialized, children must internalize and embrace them as their own, hopefully prior to reaching adolescence. It is important to recognize, however, that this cannot be forced upon children, but rather is best achieved through nurturance and respect.

Summary

The PATHS prevention model contains a number of basic principles that are drawn from the five theories discussed. First, the school environment is a fundamental ecology and one that can be a central locus of change. Second, to affect significant changes in children's social and emotional competence, it is necessary to take a holistic approach that includes a focus on affect, behavior, and cognitions. Third, children's ability to understand and discuss emotions is related to their ability to inhibit behavior by utilizing verbal self-control. Fourth, children's ability to understand their own and others' emotions is a central component of effective problem-solving and social interactions. Fifth, developmental models indicate that it is important to build protective factors (e.g., promote reflective thinking, problem solving, and the ability to accurately anticipate and evaluate situations) that decrease maladjustment. These skills, in turn, increase children's access to positive social interactions and provide opportunities for a greater variety of learning experiences. As such, these skills should also contribute to the amelioration of significant underachievement and promote skills that are beneficial to the prevention of other types of adolescent problem behaviors in the future (e.g., aggression, substance abuse, dangerous risk-taking, etc.).

Brief Description of Intervention

The PATHS Curriculum consists of an Instructional Manual, six volumes of lessons, pictures, photographs, posters, Feeling Faces, and additional materials. PATHS is divided into three major units: (1) the Readiness and Self-Control Unit, 12 lessons that focus on readiness skills and development of basic self-control; (2) the Feelings and Relationships Unit, 56 lessons that focus on teaching emotional and interpersonal understanding (i.e., Emotional Intelligence); and (3) the Interpersonal Cognitive Problem-Solving Unit, 33 lessons that cover eleven steps for formal interpersonal problem-solving. Two further areas of focus in PATHS involve building positive self-esteem and improving peer communications/relations. Rather than having separate units on these topics, relevant lessons are interspersed throughout the other three units. There is also a Supplementary Unit containing 30 lessons which review and extend PATHS concepts that are covered in the major three units. The PATHS units cover five conceptual domains:

1. self-control,
2. emotional understanding,
3. positive self esteem,
4. relationships, and
5. interpersonal problem solving skills.

Each of these domains has a variety of sub-goals, depending on the particular developmental level and needs of the children receiving instruction.

PATHS is an expansive and flexible program that allows implementation of the 131 lessons over a 5 year period, but it should be noted that any particular lesson is not necessarily equivalent to one session; indeed, depending on the needs of any specific classroom, one PATHS lesson can run from one to five or more PATHS sessions. Pictures and photographs are included for all of the lessons, with smaller graphics provided in the margins of the scripts to make the curriculum more user-friendly. Most of the materials that are needed are included in The PATHS Curriculum kit, but supplementary materials can certainly be added as desired.

A separate volume is also included with PATHS to serve as an Instructional Manual for teachers. To encourage generalization to the home environment, parent letters and information are provided periodically in the curricular lessons and can be sent home by the teachers as desired. "Home activity assignments" (separate versions for younger and older students) are also included for children to do at home (e.g., Ask your mom or dad or other adult about a time when they felt proud) to further involve parents (please see Appendices E and F).

Evidence of Program Effectiveness

Three controlled studies with randomized control vs. experimental groups (using one year of PATHS implementation with pre, post, and follow-up data) have been conducted by the present authors. These have included three different populations including deaf/hearing impaired, regular education, and special education-classified children.

Increasing Protective Factors

In all three clinical trials, compared to matched control children, the use of the PATHS Curriculum has significantly increased the children's ability to:

- Recognize and understand emotions
- Understand social problems
- Develop effective alternative solutions
- Decrease the percentage of aggressive/violent solutions

In all three groups of children, teachers report significant improvements in children's prosocial behavior in the following domains:

- Self-control
- Emotional understanding
- Ability to tolerate frustration
- Use of effective conflict-resolution strategies

Cognitive testing indicates that PATHS leads to improvements in the following skills:

- Ability to plan ahead to solve complex tasks with normal and special needs children (WISC-R Block Design and Analogies of the Test of Cognitive Abilities; not tested in the Deaf/Hearing-Impaired group)
- Cognitive flexibility and low impulsivity with non-verbal tasks (Coding from the WISC-R)
- Improved reading achievement for young deaf children

Reducing Maladaptive Outcomes

Teachers report the following reductions in behavioral difficulties **at one-year post intervention:**

- Decreased internalizing symptoms (sadness, anxiety, and withdrawal) in special needs classrooms
- Decreased externalizing symptoms (aggressive and disruptive behavior) in special education classrooms

Students (in regular and special needs classes) self-report the following reductions in behavioral difficulties **at one-year post intervention:**

- Decreased symptoms of sadness and depression (Child Depression Inventory)
- Decreased report of conduct problems

Initial Finding from the National Fast Track Demonstration Program

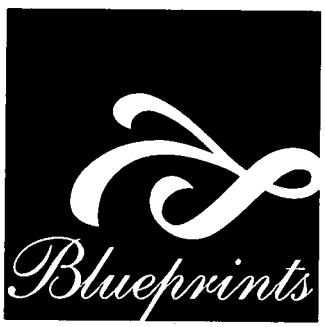
The FT/PATHS Curriculum (a revised version of PATHS which maintains the critical components of the original curriculum) is the central universal prevention component of the Fast Track Program. Fast Track is a comprehensive program whose goals include the prevention of aggression and delinquency and the promotion of social and academic competence. The Fast Track Program involves a longitudinal design and is conducted in four American locations (Seattle, Nashville, Durham, and rural Pennsylvania). Findings at the end of first grade (after one year of implementation) indicate

that in schools in which PATHS is operating, there is improved social adaptation (as compared to matched control schools) as indexed by more positive reports of the following dimensions:

- Lower peer aggression scores based on peer ratings (Sociometrics)
- Lower teacher ratings of disruptive behavior (Teacher report)
- Improved classroom atmosphere (assessed by Independent Observers)

Summary

PATHS has been shown to improve protective factors and reduce behavioral risk across a wide variety of elementary school-aged children. In addition, these findings have shown cross-rater validity, as they have been reflected in teacher ratings, self-reports, child testing/interviewing, and independent ratings by classroom observers.



CHAPTER TWO

Program As Designed And Implemented

PROGRAM AS DESIGNED AND IMPLEMENTED

Goals and Measurable Objectives

The overall goal of the PATHS Curriculum is to reduce aggression and behavior problems by promoting the development of social and emotional competencies in children during the elementary school age years. Also popularly known as Emotional Intelligence, specific targeted protective factors include self-control, emotional awareness, positive self-esteem, adaptive peer relationships, and interpersonal problem-solving skills. These abilities, in turn, provide tools that enable children to function more effectively in interpersonal domains (e.g., peer, school, family, community, etc.) and to better achieve academically during the elementary years. A second, broad goal of PATHS is to enhance the classroom atmosphere (including student-teacher interactions) to facilitate learning as well as the internalization of prosocial values.

Some of the specific objectives of PATHS include the following:

Self Control

- Increasing self-control, i.e., the ability to stop, think, and calm down before taking action, especially when feeling upset

Emotional Awareness, Understanding, and Regulation

- Developing an understanding and use of the vocabulary of emotions and emotional states
- Increasing the ability to recognize and interpret the feelings and views of self and others
- Promoting empathy, consideration, and respect for others
- Developing recognition and understanding of how one's behavior affects others

Social Problem-Solving and Peer Relations

- Increasing knowledge of, and the ability to apply, the steps of social problem-solving to prevent and/or resolve problems and conflicts in social interactions
- Promoting creative problem-solving and critical thinking skills in academic domains

School Climate and Promotion of Positive Values and Healthy Relationships

- Enhancing the classroom atmosphere to support academic development, healthy peer relations, and positive school atmosphere
- Developing a responsible and positive attitude towards school, community, and life

These specific objectives are viewed as some of the important mediators for the short-term and long-term desired outcomes of (1) decreased rates of behavioral and emotional symptomology (aggressive/externalizing behavior as well as depression/anxiety/internalizing symptoms), (2) increases in prosocial and emotional development, (3) positive peer relations, and (4) improved academic involvement.

Targeted Risk and Protective Factors

There are a number of specific child-related risk and protective factors that are targeted in PATHS which should facilitate the prevention of future delinquency, violence, and substance abuse. These are summarized as follows:

1. It is well known that impulsivity (i.e., poor self-control) is related to aggressive behavior, risk-taking, and academic underachievement, all of which are important risk factors for the development of delinquency, violence, and substance abuse.

2. Recognizing, labeling, and thinking about feelings makes it more likely that feelings will not be automatically translated into action-oriented responses (i.e., there will be more cortical as compared to limbic system control over responses to strong emotion). For example, children and adults with significant conduct problems show poorer expressivity and understanding of emotions in themselves and others. In addition, affective awareness should enhance academic achievement, a protective factor as noted above. As Goleman (1995) noted, "intellect cannot work at its best without emotional intelligence" (p. 28).

3. Empathy, respect for others, and the ability to understand how one's behaviors affect others are important factors for self-prohibition of antisocial behavior. It has been shown, for example, that the recidivism rate for delinquents is significantly reduced when these adolescents are taught to role-play and take the perspectives of their victims. Furthermore, these interpersonal skills facilitate the ability to form positive, adaptive relationships with others, which, in turn, make it more likely for individuals to feel a sense of belonging to prosocial groups.

4. Adaptive problem-solving skills and practice in using them makes it more likely that children and adolescents will utilize these abilities when feeling upset, pressured by peers, and so on, rather than take impulsive action (e.g., by using alcohol and drugs to "medicate" strong feelings or in acquiescence to demands from friends). Prosocial coping styles (problem-solving skills) and positive peer relations have both been shown to act as protective factors for children under stress. Similarly, research suggests that the development of more complex and accurate plans and strategies (social-cognitions) regarding emotions has a major influence on children's social behavior.

5. The ecological process factors targeted in PATHS are believed to serve multiple protective purposes. First, through improved training and emotional awareness for teachers and other school-related staff, PATHS seeks to positively alter the quality of relationships between school personnel and students. This change in the quality of relationships is intended to improve the classroom and school atmospheres, increase the children's positive attachments to the school and teacher, and decrease school-related aggression. Secondly, in using PATHS, teachers become more knowledgeable about dynamic factors that affect behavior, as well as the specific emotional needs of their particular students, and thus can be more empathic and better able to intervene in more effective ways. Third, children become better able to understand their teachers, respect their teachers' feelings, and identify with their teachers' prosocial values. Fourth, when children are listened to with respect by their teachers and peers, they feel valued, appreciated, and part of a social group, which in turn, motivates them to value, care for, and feel prosocial towards the groups to which they belong.

Targeted Population

The PATHS Curriculum is targeted to the elementary school age population—all children in Kindergarten through Grade 5. The overarching goals of PATHS are to promote the growth of productive, creative, competent, well-balanced children and to facilitate the development of a strong, healthy foundation prior to the onset of adolescence.

The first version of PATHS was developed in the early 1980's to provide teachers of hearing-impaired students with the tools they needed for the basic education of deaf children; these students, as a group, were clearly deficient in social-emotional understanding due to language deficits and communication deprivation, especially in the majority of home environments (i.e., most parents of deaf children are hearing and are not fluent in sign language, while most deaf children are not proficient lip readers). As we began working in the school settings, we were somewhat surprised at the level of enthusiasm expressed by teachers and administrators working with other groups of children, including regular education and a wide variety of specialized groupings; they would ask, "What makes you think this is something that only deaf children need?"

Thus, although originally developed for use with deaf children, the investigators' work over the subsequent 16 years has resulted in the field-testing and evaluation of improved versions of PATHS for a wide variety of populations, including students in regular education and special needs settings. Different developmental subgoals and skills are emphasized with different ages and types of populations. The *Instructional Manual* (included with the curriculum) provides separate chapters to provide information on how a teacher might start with different populations and how to adapt the curriculum for use with special populations and contexts.

PATHS has been shown to be beneficial for use in both regular and special education, with children of both genders. Within the special needs category, PATHS has been effectively utilized with a variety of children, including those with learning disabilities, mild mental retardation, deafness and hearing-impairment, and serious emotional and behavioral disorders. This is important as children with these special needs are known to show delays in social-emotional domains and to be at greater risk for psychological problems as they grow older. PATHS has also been successfully used with intellectually-gifted students. Findings with both regular education and deaf students have been replicated in different projects.

Successful implementations of PATHS have been done with entire schools (grades 1 through 5) and with selected grades of elementary-aged children, as well as with self-contained classrooms for special needs children from Kindergarten through Grade 6. In addition, PATHS has been well-received in both public and private school settings, which have included the entire range of SES strata, as well as children from a wide diversity of ethnic, cultural, and family-structural backgrounds. Growing up in today's world is difficult for all children, and is not limited by economic, racial, cultural, or family constellational boundaries.

PATHS has been effectively utilized with various populations including kindergarten through grade 5 regular, special education, and gifted students from a wide diversity of ethnic, cultural, socioeconomic, and family-structural backgrounds. PATHS has been used with special needs children who are deaf and hearing-impaired, learning disabled, language delayed, behaviorally and emotionally impaired, and mildly mentally delayed.

Findings indicated that PATHS is effective as both a prevention and as an intervention program. These dual functions are especially useful to educators, since today's classrooms generally include a mixture of children who are in need of intervention as well as children who are not "at risk," but who can nevertheless benefit from prevention programs designed to reinforce healthy functioning.

Although PATHS was developed for use with children in grades K through 5, it has additionally been successfully adapted for preschool children. PATHS has also been used, but not researched, with elementary-aged children in after school care settings.

PATHS primarily focuses on teaching social and emotional competencies to children, but information and activities are also available for teachers to send home for parents to both improve their knowledge of child development and to prompt and reinforce the PATHS-related skills children have learned at school (and thus increase generalization). Although parents are not considered a target population of PATHS, an additional program specifically aimed towards parents can certainly be used in conjunction with PATHS.

Program as Designed

Program Content

As previously noted, the five major conceptual domains contained in PATHS include:

1. self-control,
2. emotional understanding,
3. positive self esteem,
4. relationships, and
5. interpersonal problem solving skills.

We view the development of each of these areas as composed of stages/phases that are marked by increasing differentiation of concepts and skills and have emphasized their hierarchical integration. A variety of subgoals are targeted for each domain, depending on the particular developmental level and needs of the children receiving instruction. At all developmental levels, however, a critical focus of PATHS involves facilitating the dynamic relationship between cognitive-affective understanding and real-life situations.

Although each unit of PATHS focuses on one or more of these skill domains listed above, we have nevertheless attempted to integrate at least some aspects of all five areas into each of the units. Moreover, certain foci are continually reintroduced to integrate the various themes (e.g., developing a reflective thinking style, increasing self-esteem, encouraging recognition of emotions, emphasizing conflict resolution, etc.), and each new unit builds hierarchically upon and synthesizes the learning that preceded it.

A complete Table of Contents of the entire PATHS Curriculum (including Turtle Unit), listing the titles of all 131 lessons, can be found in Appendix B. The lessons are sequenced according to increasing developmental difficulty, and they include such activities as dialoguing, role-playing,

story-telling, modeling by teachers and peers, social and self-reinforcement, attribution training, and verbal mediation. Learning is promoted in a multi-method manner through the combined use of visual, verbal, and kinesthetic modalities. Original stories and activities are included to enhance motivation and skills in reading and language arts. Extensive generalization techniques are included to assist teachers in applying and transferring skills to other aspects of the school day as well as to the home.

In addition, especially with the Feelings and Relationships Unit and with the Supplementary Unit, certain lessons, reviews, and processes need to be repeated both during and over the years, at least to some extent, as children mature and are able to process the information at more sophisticated levels. For example, fifth grade children are far better able to discuss their feelings and experiences than third grade children, who in turn are more sophisticated than first graders, but all groups benefit equally from these experiences, even when the same emotions are used for the contextual basis of the sessions during each of these years. Supplementary material can also be easily utilized as adjuncts to PATHS (e.g., conflict-resolution skill training, bullying prevention program, etc.) as desired.

It is expected that completion of the basic curriculum will cover the span of the elementary school years, although this will depend greatly on a number of factors (e.g., age and developmental levels of the students, how frequently PATHS is taught, etc.). We strongly believe that PATHS is best taught every year, on a regular basis, just as reading, math, and so on are taught on a yearly basis, with different emphases, as children mature. Coordination among teachers of different grade levels is obviously important, as it is for any subject, so those teachers know what lessons were covered in the previous year.

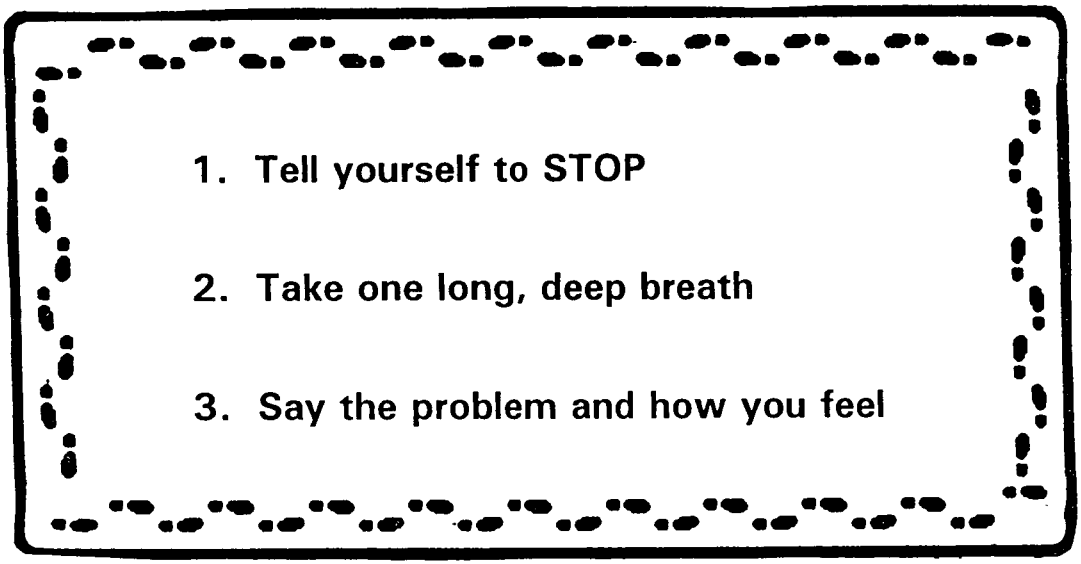
The Readiness and Self-Control Unit (The Turtle Unit)

The Readiness and Self-Control Unit (or Turtle Unit as it is more popularly known) includes a series of 12 structured lessons (in a separate volume) to teach a specific procedure for basic interpersonal self-control. During this set of lessons, as described earlier, children are told a metaphorical story about a young turtle that has both interpersonal and academic difficulties that arise because s/he does "not stop to think." These problems are manifested in the young turtle's aggressive behaviors (which are related to numerous uncomfortable feelings). With the assistance of a "wise old turtle," the young turtle learns to "Do Turtle" to develop better self-control (which involves going into his/her shell and engaging in three steps for calming down). The script for the Turtle Story is accompanied by eight drawings which illustrate each section of the story.

The Turtle Technique (originally conceptualized by Robin, Schneider, & Dolnick, 1976) emphasizes a sensorimotor modality (i.e., going inside one's "shell" when one feels angry, upset, or otherwise distressed), in addition to the use of self-talk and Three Steps for Calming Down: 1. Tell yourself to STOP; 2. Take one long, deep breath; 3. Say the problem and how you feel.

By practicing this procedure, children learn to "Do Turtle" in lieu of negative behaviors. In addition to teaching children a successful method for controlling and inhibiting aggressive actions, Turtle also functions as a reliable signal of distress to display to teachers and peers. A reinforcement program accompanies Turtle and can be individually tailored by each classroom teacher to provide a system for generalization throughout the classroom day.

Steps for Calming Down

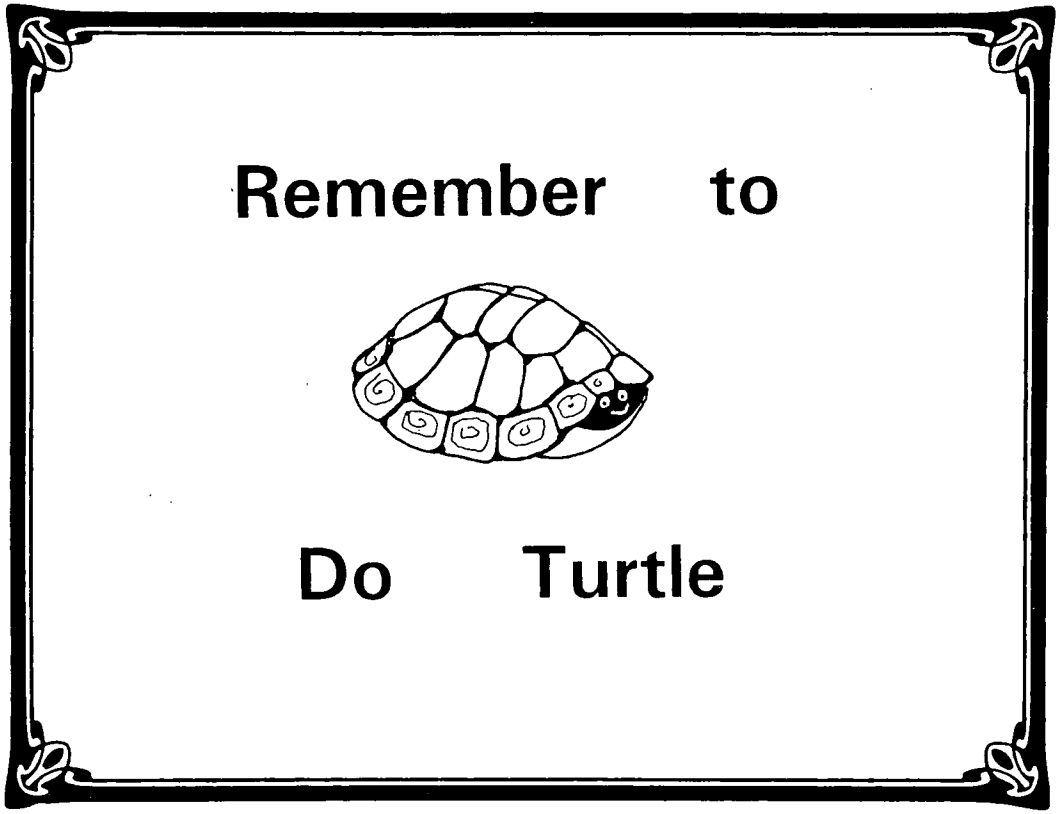


The specific behavioral/motoric response for Turtle can be selected by the classroom teacher from a variety of postures or movements (e.g., hands crossed on the chest, hands held together, hands crossed making the sign for turtle, hands in pockets, etc.). For very young and/or seriously aggressive children, a whole body motor response can be utilized. The use of a motoric behavior is especially important for this kind of basic self-control because this is the type of automatic response (e.g., arms and hands moving inward) that inhibits the physical actions typically made by young children when angry (e.g., arms and hands lashing outwards). The motoric Turtle response thus assists in preempting acting-out behaviors, especially after it becomes "automatic."

Originally, The Turtle Unit was developed as an adjunct to PATHS for use primarily with children with developmental or communicative delays and/or serious behavioral problems (e.g., deaf children, children in self-contained special classes, etc.). It was designed as an optional unit for use with normally developing children in Kindergarten or Grade 1. Over time, however, teachers and counselors have increasingly told us that Turtle is an effective starting point for their regular Kindergarten and sometimes first grade classrooms. This unit is also easily and effectively used with preschoolers.

Although the length of time necessary to complete the Turtle Unit depends upon the developmental level of the students, the average time for completion is about 5-7 weeks. The reinforcement program, however, can continue for as long as desired.

Generalization Procedure. The Turtle Unit has a built-in generalization strategy in that it is used, with the reinforcement program, throughout the classroom day. With instruction, Turtle can also be used by auxiliary staff outside of the classroom setting.



Feelings and Relationships Unit

The Feelings and Relationships Unit (Volumes 1 through 3), which focuses on teaching emotional and interpersonal understanding, can either be taught after The Turtle Unit or used at the beginning of PATHS if students do not need a model for basic self-control. The 56 lessons, which cover more than 50 different affects, increase in developmental complexity as they continue, beginning with basic emotions such as happy, sad, and angry, and gradually moving on to more complex emotional states such as guilty, proud/ashamed, and rejected/belonging.

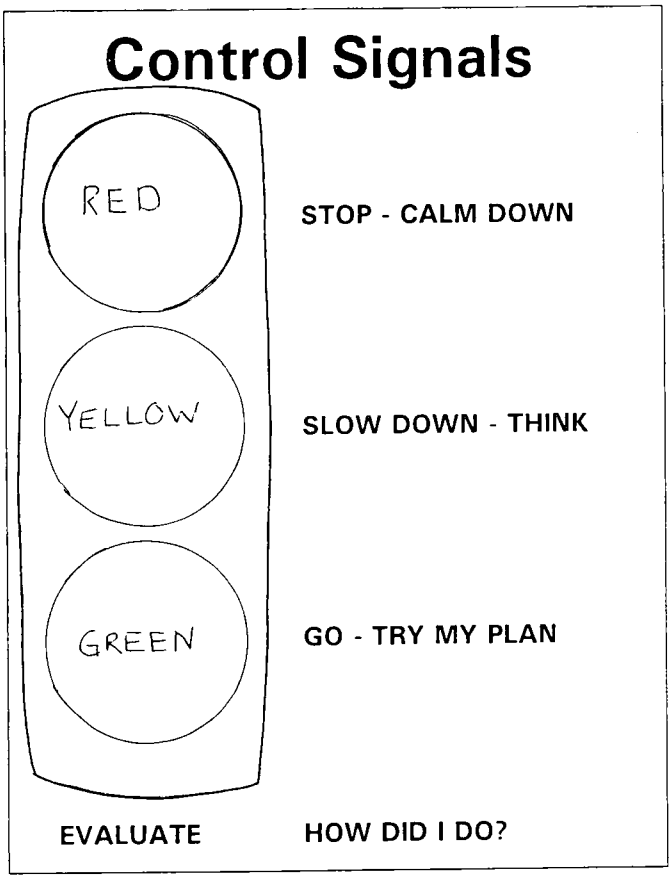
The Feelings Unit teaches children that all feelings are OK to have and that some feel comfortable (yellow) and some feel uncomfortable (blue). The children are taught that all feelings are signals that communicate useful information. If people learn to attend to their feelings and to what other people's feelings are telling them, this information can be beneficially utilized in making choices and decisions.

Behaviors, on the other hand, are subject to evaluation. Some behaviors are okay, while some are not okay. Children learn behaviors are often much more complex: some behaviors are okay in some contexts, but not in others, and some behaviors are okay according to some people, but not to others.

In other words, children are taught to analyze and judge behaviors, but not to criticize feelings. With regard to behaviors, the goal in PATHS is not to tell children the "right" and "wrong" ways to do things, but rather to empower children to think about behaviors and their consequences so that they can internalize the desire to make prosocial choices. Children are thus taught to have greater empathic realization of how one's behaviors can affect other people and to think about how the behavior of others can affect oneself. Further, children are encouraged to make choices about their behaviors based on knowledge of and respect for their own feeling states, as well as respect for the feelings of others (e.g., why is it important to have and use good manners?).

The ability to identify and label emotional states is a critical aspect of Emotional Intelligence and self-awareness, and it is also a precursor for both effective self-control and optimal problem resolution; thus, the recognition and labeling of feeling states receives a heavy emphasis throughout this unit of PATHS. With the use of didactic instruction, group discussions, experience sharing, role-playing, stories, art activities, and so on, numerous additional skills are also taught, including verbal and nonverbal cues for self-recognition of feeling states and for the recognition of emotions in others, practice in understanding the perspectives of others, affective self-monitoring techniques, understanding intensity of feelings, training in understanding the links between causes and emotions, intentionality, experiencing simultaneous feelings of a divergent nature, privacy, hiding and changing feelings, respect for others, group dynamics, and so on.

The development of self-control, affective awareness and communication, and beginning problem-solving skills are integrated during the anger management section of this unit with the introduction of the Control Signals Poster (CSP). The CSP is modeled on the notion of a traffic signal and has a red light to signal "Stop - Calm Down," a yellow light for "Go Slow - Think," a green light to signal "Go - Try My Plan," and at the bottom, the words "Evaluate - How Did My Plan Work?" In a series of lessons, the children are taught skills to use with the different signals of the poster and are thus introduced to a simplified, active model of problem-solving that is used throughout the remaining units.



Generalization Procedures. The Feelings and Relationships Unit contains two main techniques for generalization. The first is the use of Feeling Faces. During the first Feeling lesson, the children make their own Feeling boxes. After each emotion concept is introduced during subsequent lessons, the children personalize their own Feeling Faces for that affect by adding hair. As the lessons progress, the children's boxes, which they keep in their desks, become full of different Feeling Faces. The Feeling Faces fit into an attached strip on the child's desk that reads, "I feel...." These strips and faces allow the children to communicate their feelings with minimal difficulty throughout the day, and they facilitate the children's understanding about how feelings change (i.e., children can physically "change" their Feeling Faces in a concrete manner when they become aware of a change in their internal emotional state).

Teachers also have their own personalized sets of Feeling Faces and use them as models for their students. In addition, teachers are encouraged to promote generalization at the beginning and at the end of the school day, after recesses, and after lunchtime by suggesting that the children evaluate how they feel and display the appropriate face(s). A Feeling Chart (with Feeling Faces) is also available in the classroom throughout the day for the children to use as a reference source.

The second generalization technique involves the use of the Control Signals Poster. For purposes of generalization, a copy of the CSP remains constantly in view in a strategic area of the classroom so that teachers can use this model for active problem-solving during the classroom day. For additional generalization, Control Signals Posters can be placed in important areas around the school (e.g., lunchroom, library, playground, principal's office, etc.) and with training, can be used by auxiliary staff members.

A subunit from the Supplementary Lessons (see below) can also be optionally utilized at this time by using the CSP as a paradigm for informal problem-solving meetings that can be interspersed with the intermediate and advanced Feelings and Relationship lessons. Many teachers utilize these informal problem-solving sessions on a weekly basis.

Interpersonal Cognitive Problem-Solving Unit

The Problem-Solving Unit in PATHS (Volume 4) teaches eleven formal steps for interpersonal problem-solving. This section contains 33 lessons and is usually not introduced until Grades 3 or 4, after the children have already built a solid foundation with the concepts introduced during the previous school years. In other words, the skills learned during the preceding units are all prerequisites for developing competent interpersonal problem-solving, so lessons on this topic do not begin until the groundwork has been covered by previous instruction.

Following the conceptual model developed by Shure and Spivak (1978), and Weissberg et al. (1981), this content area has been expanded to sequentially cover the following eleven steps:

STOP!

1. Stop and calm down
2. Identify the problem (collect lots of information)
3. Identify the feelings (your own and other peoples')

GO SLOW!

4. Decide on a goal
5. Think of lots of solutions
6. Think about the consequences
7. Choose the best solution (evaluate all of the alternatives)
8. Make a good plan (think about possible obstacles)

GO!

9. Try my plan
10. Evaluate - How did I do?
11. If you need to, try again

One of the main objectives of this unit is to provide children with extended practice in learning each of the affective-cognitive steps of the model. As the children have already had extensive practice with the first three steps and have been using a brief version of problem-solving involving the Control Signals Poster, the lessons in this unit focus more heavily on the later steps of the model.

Generalization Procedures. Two main generalization techniques are utilized in the Problem-Solving Unit. First, the teacher keeps a "problem box" or "mailbox" on his/her desk or at some other central location. During the day, any student experiencing a problem can write it down and place the note in the box. Once or twice each week, these real problems are used as the content for problem-solving meetings. In addition, teachers are encouraged to use peer conflicts or other interpersonal dilemmas as grist for active problem-solving with individual children.

An additional type of generalization that is increasingly fostered as the curriculum continues involves the transfer of problem-solving skills to other learning domains. Although PATHS focuses on the development of social thinking skills, teachers are encouraged to utilize the problem-solving model when teaching other academic subjects (e.g., reading, mathematics, social studies, etc.).

Building Positive Self-esteem and Peer Relations

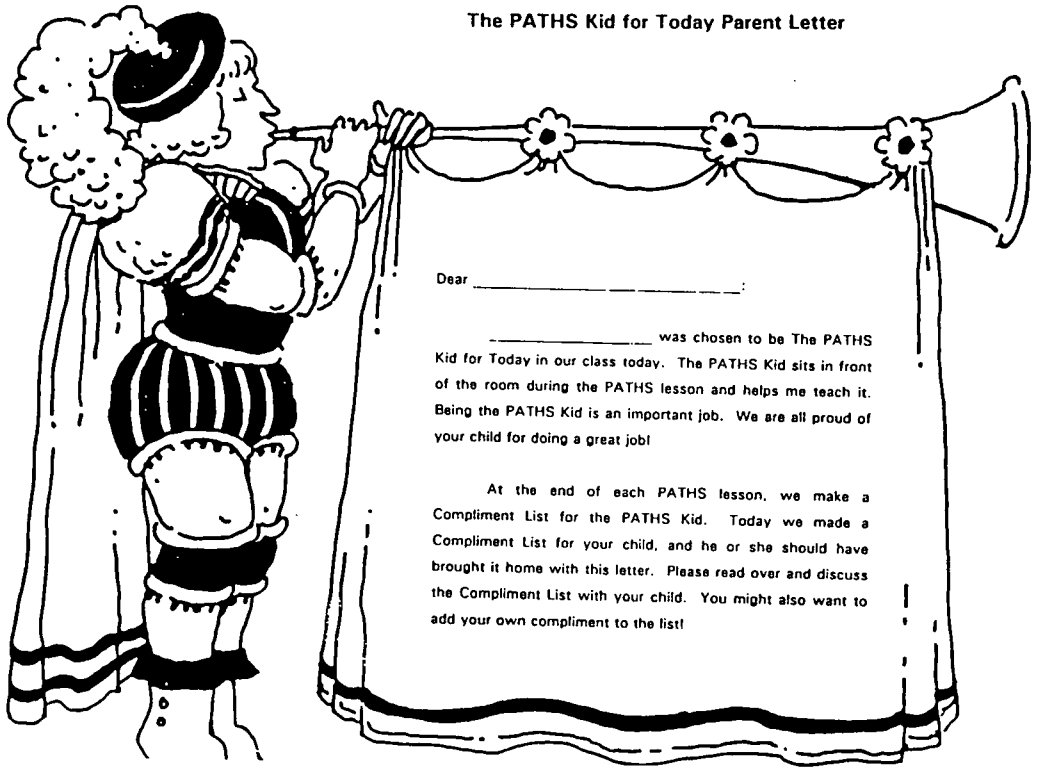
Two further areas of focus in PATHS involve positive self-esteem and peer communications/relations. These areas are not developed in separate units; rather, they are integrated into the other units of PATHS.

Near the very beginning of the curriculum (either in Turtle or in Feelings and Relationships, whichever is used as a starting point), a paradigm called The PATHS Kid for Today (adapted from Urbain, 1983) is introduced, and the children are taught the concept of complimenting. The PATHS Kid procedure then continues as part of every PATHS lesson and develops into a very effective process, as well as a meaningful classroom tradition.

For each PATHS session, a different PATHS Kid is selected and is invited to be the teacher's assistant. After the PATHS Kid has completed his or her duties, the child gets compliments from peers, teacher, and self, which are recorded on a Compliment List. The Compliment List is then displayed in the classroom and goes home at the end of the day with a special letter to the child's parent(s). The PATHS Kid component becomes a very important aspect of the social ecology of each classroom, and complimenting becomes generalized, used throughout the classroom day.

Further aspects of communication, relationships, and positive self-esteem are interspersed throughout the three main units of PATHS (as well as in the Supplementary Unit), including a six lesson subunit on manners in the Feelings and Relationships Unit that can be taught (and retaught) whenever desired. In addition to the content, the processes incorporated into PATHS further target these areas. Parent letters are also sent home to encourage generalization of these and other PATHS goals in the home setting.

Finally, at the end of the Problem-Solving Unit, a generic PATHS Party lesson (Lesson 89), which includes the Great PATHS Kid Award, can be given. Naturally, children (and their teachers) should get this (or a similar award) at the end of every PATHS year!



The PATHS Kid for Today Parent Letter

Dear _____:

_____ was chosen to be The PATHS Kid for Today in our class today. The PATHS Kid sits in front of the room during the PATHS lesson and helps me teach it. Being the PATHS Kid is an important job. We are all proud of your child for doing a great job!

At the end of each PATHS lesson, we make a Compliment List for the PATHS Kid. Today we made a Compliment List for your child, and he or she should have brought it home with this letter. Please read over and discuss the Compliment List with your child. You might also want to add your own compliment to the list!

Supplementary Unit

The 30 lessons included in the Supplementary Unit (Volume 5) review and extend PATHS concepts that are covered in other units. These lessons are not mandatory, but are instead intended to provide teachers with supplemental materials to enhance the teaching of PATHS concepts. The purposes of the Supplementary Unit are diverse, as these lessons are included to serve a variety of needs at different grades and developmental levels. Some lessons can be used in coordination with other units, for added flexibility, while others are used only for review after previous units have been completed. The material in this Unit can be roughly divided into six separate sub-components, as follows:

Informal Group Problem-solving Meetings (Lessons 90-92). One of the important goals of the PATHS Curriculum is to create a classroom atmosphere in which effective problem-solving becomes a central aspect of the natural routine. In this way, skills and knowledge learned during PATHS lessons can be transferred to other contexts. However, as many concepts must be covered before *formal* problem-solving can be taught, the supplementary lessons provide a simple paradigm for instituting informal problem-solving meetings prior to the completion of the Problem-Solving Unit. The basic model for these meetings follows from the Control Signals Poster. These lessons also establish the use of a Problem Box as a place where children and teachers can write down problems that they would like to have the class help solve.

Self-control: Review and Extension (Lessons 93 - 94). As self-control is an essential component in problem-solving, anger management, and competent, mature behavior, it requires regular review. The Supplementary Unit contains two lessons that provide review of the CSP as well as extending the process of self-control by introducing the idea of preventing problems by stopping, calming down, and thinking ahead to anticipate difficulties.

Friendship and Peer Relations (Lessons 95 - 97). The development of positive peer relationships is another central goal of PATHS. In addition to the ongoing discussion of peer relations throughout the other units, the supplementary lessons encourage discussion of a number of specific issues related to peer relations and friendships. These lessons include discussion of the characteristics and behaviors that make "good friends," discussion and role-play of different ways to make friends in new contexts, and discussion and role-play on making up after having a conflict with a friend.

Teasing (Lessons 98 - 101). A four-lesson subunit on the problem of teasing and its management in peer relations follows the friendship lessons. Because teasing is a constant concern for students, teachers, and parents, this subunit can be taught whenever it seems most relevant.

Review of Formal Problem-solving (Lessons 102 - 111). In order to provide a complete review of problem-solving, a ten lesson unit is provided. It is designed to be taught in the subsequent year(s) after the students have covered the Problem-Solving Unit (i.e., usually during the fourth and/or fifth grades).

Fairness: Moral Development (Lessons 112 - 119). The major purpose of this eight-lesson sequence on fairness is to explore issues and judgments related to fairness, as well as the different feelings and attributions that accompany these judgments or opinions. These lessons are among the most complex in the PATHS Curriculum and build on skills acquired during lessons in other units of PATHS (e.g., aspects of problem-solving, understanding of feelings, and perspective-taking skills).

Instructional Manual

In addition to the six volumes of PATHS lessons, a separate Instructional Manual is provided to assist with process issues. This volume includes information about the PATHS philosophy, generalization strategies, materials, tailoring PATHS for special populations, and so on (see Appendix C for a copy of the Table of Contents).

Scope and Sequence

PATHS is best utilized as a continuous curriculum model across the elementary school years. The Instructional Manual provides information on where to begin with different student populations and

how to modify presentation for differing special needs populations. The *Instructional Manual* also suggests three general scope and sequence models depending upon the age and cognitive/linguistic levels of the class.

Here we provide an updated model of scope and sequence for teachers in regular education. Appendix D provides a division of PATHS lessons into developmental/conceptual units. Table 2 presents a grade by grade suggested pattern for using these developmental units; this table is provided as a general guideline. This model presumes that PATHS has begun in kindergarten or first grade and is used each subsequent year. This model could not be used if a school began in all grade levels at one time. However, as with any multi-year curriculum (e.g., reading, mathematics), it is necessary to know what lessons and skills have been previously taught and which lessons require repetition. It is also important to note that once teachers understand and have experienced the structure provided by the PATHS model, they then have some flexibility in shifting/revising particular lessons as needed by their students.

The PATHS Curriculum provides detailed lesson plans, exact scripts, suggested guidelines, and general and specific objectives. However, the curriculum has considerable flexibility so that it can also be integrated with an individual teacher's style. Scripts are provided to furnish information and assist teachers in presenting concepts at a minimum language level, but teachers are encouraged to elaborate and paraphrase ideas in a manner best suited for their students. Further, teachers decide the particulars of generalization strategies, the problems that are solved during the "real-life" problem-solving lessons, and so forth.

One issue related to dissemination concerns how often lessons should be taught. In all research projects, PATHS was taught on the average of three times per week for a minimum of 20-30 minutes per day. The developers recommend that lessons be frequent (at least three times per week) in order that students progressively build their knowledge and skill base and that the curriculum be used as a central and regular part of the classroom routine.

Table 2

Sequence of PATHS Developmental Units by Grade Level and Areas of Content

GRADE LEVEL	LESSON #	SELF-CONTROL	EMOTIONAL UNDER-STANDING	SELF-ESTEEM	PEER RELATIONS	PROBLEM SOLVING
Kindergarten						
PATHS Key Foundation	1-2, 11,12, 89-92	X		X	X	X
Turtle	R1 – R12	X	X	X		X
Basic Feelings	3-9,13-14,18-20,22	X	X		X	
Grade 1						
PATHS Key Foundation	1-2, 11,12, 89-92	X		X	X	X
Turtle [1]	R1 – R12	X	X	X		X
Basic Feelings	3-9,13-14,18-20,22	X	X		X	
Intermediate Feelings	10,15-17,21, 23-32		X		X	
Problem-Solving Meetings[2]	90-92	X			X	X
Grade 2						
PATHS Key Foundation	1-2,11,12, 89	X		X	X	X
Basic Feelings (brief review)	3-9,13-14,18-20,22		X		X	
Intermediate Feelings (review)	10,15-17,21, 23-32		X		X	
Advanced Feelings[3]	33, 48, 50-56		X		X	
Manners	38-44		X		X	X
Relationships	95-101, 112-119				X	
Problem-Solving Meetings	90-92	X			X	X
Grade 3						
PATHS Key Foundation	1-2,11,12, 89	X		X	X	X
Self-Control (review)[4]	93-94					
Intermediate Feelings (review)	10,15-17,21, 23-32		X		X	
Advanced Feelings	33, 48, 50-56		X		X	X
Manners	38-44		X			X
Relationships	95-101, 112-119					
Problem-Solving Meetings	90-92	X			X	X
Grade 4						
Advanced Feelings (review)	33, 48, 50-56		X		X	
Manners (review)	38-44		X			X
Relationships	95-101, 112-119	X	X	X	X	X
Problem Solving I	57 -70	X	X		X	X
Problem-Solving Meetings	90-92	X			X	X
Grade 5						
Advanced Emotional Intelligence	35-36, 45-47					
Problem Solving II	71-88	X			X	X
Relationships	95-101, 112-119	X	X	X	X	X
Problem Solving (review)	102-111	X	X		X	X
Problem-Solving Meetings	90-92	X			X	X

[1] If not done in Kindergarten – teacher decision
[2] After Control Signals Poster is introduced
[3] Or in Grade 3 – teacher decision
[4] If not done in Grade 2 – teacher decision

Core Program Elements vs. Adaptive Features

The Curriculum Model

PATHS is a curriculum model intended to integrate cognition, affect, and behavior by facilitating (1) self-control, (2) emotional awareness and expressivity, (3) positive self-esteem, (4) healthy peer relations, and (5) social problem-solving skills. As such, all 5 program components of the curriculum model are considered core components. However, since PATHS is utilized across the elementary school period and is adaptable to a variety of populations, there is great flexibility in its use, as indicated above.

The PATHS Process

As we have already noted, the process of teaching PATHS is as important as the content of the published lessons. This cannot be emphasized enough, because most teachers have been trained to cover a specific amount of content in a particular period of time. This may work well for traditional academics, but if PATHS is taught in this manner, it loses much in the way of valuable content. On the other hand, this more flexible manner of teaching is likely to be new for many teachers, so it may require considerable conscious attention before it feels natural.

Here is a real-life example of the kind of flexibility to which we are referring:

> *While teaching the lesson on Anger Intensity (i.e., Grumpy/Grouchy vs. Mad/Angry vs. Furious) to a group of first graders and discussing the concept of Furious, one of the little boys raised his hand and said, "When I feel furious, I go to punch myself in the face, but then I fall asleep before I do it."*
>
> *I responded, "Well, I'm glad to hear that even though you FEEL like you want to hurt yourself, you don't do it, because hurting yourself would be a NOT OK behavior."*
>
> *"It's OK to hurt yourself," emphatically stated another child.*
>
> *"Oh?" I responded. "You think that hurting yourself is an OK behavior? Well, let's see how many people in the class agree with you. Everyone who thinks that hurting yourself is an OK behavior, please raise your hand."*
>
> *I thought for sure that the majority of hands would be in my favor. Sadly, I was wrong. The vote was 22 OK to 8 NOT OK.*
>
> *At this point, I let go of my lesson plan on Anger Intensity and shifted to an impromptu lesson on hurting oneself. The first graders held a debate. On the OK side were the majority of quiet, well-behaved little girls, as well as many of the boys. But both sides were active in the debate: "It's OK to hurt yourself because you are not hurting anybody else." "What about your mom? Won't she feel hurt if you hurt yourself?" "Well, it's your body—you can hurt your own body if you want to," and so on. As the classroom teacher and I listened (and LEARNED!) together, we stayed silent and let the children carry on their active debating process. I thought about eating disorders and other self-destructive behaviors during adolescence and what a crucial issue this was. We tell children not to hurt other people, but how often do we tell them it is equally NOT*

OK to hurt themselves? After the children had debated for about ten minutes, the teacher and I summarized (and of course, couldn't help but add our own opinions).

Then we took another vote, and I was relieved to see the vote swing to 6 OK, 24 NOT OK. I knew that this lesson had been one of the most valuable that these kids had learned. This lesson is also not found anywhere in the curriculum, because it never occurred to us that it needed to be.

But what would have happened if instead of going with the current, I had simply stated, "It's NOT OK to hurt yourself, now let's get on with the lesson"? All of this rich opportunity "in the moment" would have been lost.

Obviously, this is but one example of why teaching PATHS is a much more complex process than it appears to be on the surface. It also demonstrates why PATHS takes longer to teach than reading the actual lessons would make it seem. In general, when PATHS is going well, there is too much to learn and too little time.

Adaptive Features

The process of implementation should proceed in stages with staff and trainers actively involved in the processes of curriculum extension, integration, and revision. Implementing a new curriculum like PATHS should be viewed as the first step in a longer-term process of system change which aims to promote a central focus on the promotion of social and emotional development and to improve the overall school atmosphere.

The first time that teachers utilize PATHS (or almost any new curriculum model), they often report feeling a bit awkward. Using PATHS generally results in the use of new language and general classroom procedures, as well as in the presentation of new material. While teachers try to present students with an integrated classroom model in which the processes for approaching the subject matter, as well as the content itself, are as integrated as possible, this goal is usually difficult to attain during the first year. In addition, one typically needs to teach a lesson before one has a sense of how to improve the presentation, how to integrate the material with one's personal teaching style, how to adapt it to a particular developmental level, and so on.

Teachers typically report that it is not until the second year of implementation that they are able to comfortably integrate the use of PATHS with other subject material, as well as with their general classroom procedures (although some teachers report that this happens by the middle of the first year). For example, integration with classroom procedures might include using a consistent vocabulary for problem-solving discussions and classroom meetings, better aligning classroom management procedures with PATHS concepts, integrating discussion of PATHS into dialogues with parents and weekly reports of classroom events, and so on. Integration with other curriculum content might include linking PATHS lessons more directly to literature being used in language arts, making alterations in academic curriculum to compliment PATHS lessons, utilizing PATHS lessons and content for journal writing, utilizing the language and procedure of problem-solving into math, science, and language arts processes, integrating art projects with PATHS lessons, and realizing the best times to teach particular lessons given a teacher's preferred holiday themes.

Whole-building curriculum implementation also leads to numerous opportunities to alter the extra-classroom environment and school-based procedures for managing behavior and promoting social competence. As teachers become more comfortable with teaching PATHS in their individual classrooms and as the language and concepts come to be better internalized by the students, it is possible to extend the use of PATHS concepts to the playground, lunchroom, and other school locations. For example, innovative schools have initiated such ideas as putting Control Signal Posters on the playground and on playground staff t-shirts; painting red, yellow, and green circles on the playground where children can physically engage in calming down, thinking, and moving on; integrating PATHS language and dialoguing techniques with the training of conflict-resolution teams; and so forth. Older classes can become involved in teaching younger classes, classes can do role-plays at school-wide or grade-level assemblies to demonstrate PATHS concepts (e.g., how to stop and calm down, the use of the Red Light, ways to handle teasing, how to make up after a disagreement, etc.). There are numerous ways to extend PATHS concepts school-wide, but these are decisions that require brainstorming, discussion, and decision-making by all school staff. Various schools make quite different decisions based on their ecologies, philosophies, and decision-making processes.

Several chapters in the *Instructional Manual* discuss further issues regarding curriculum integration, generalization, the utilization of supplementary literature, and so on. In general, however, the use of PATHS should be seen as an evolving process.

Planning and Implementation

The planning and implementation of each research project has varied in terms of securing funding and obtaining key contacts. For all of the projects, however, funding was secured from agencies outside of the schools (i.e., private foundations, state level demonstration funds, and federal support from The National Institute of Mental Health). In all cases, key leaders have included school building principals, Directors of Curriculum and Instruction, Assistant Superintendents, and the Superintendents of local school districts.

Key Contacts

At the beginning of the initial projects with both deaf and hearing (regular and special education) schools, the curriculum had already been developed. Initial contacts were made with principals and administrative, district-level staff to discuss the possibility of collaboration. We also found great interest and support from parents, parent-teacher organizations, and school board members. As both of these projects (as well as the recent Fast Track project) consisted of randomized trials involving multiple schools, agreement at the highest levels of school district administration was necessary for the use of the curriculum in the classroom, as well as for the approval of the overall research design and measurement model. In all three trials, we found that building level support from principals and teachers was a key element in receiving approval at the higher administrative levels.

Funding and Program Costs

Financial support for both program and research costs was secured by the investigators, and there were no substantial costs incurred by the school districts. Outside financial support covered the costs of all curriculum materials, training and teacher credit hours, weekly supervision, and research expenses. For the project with deaf children, funding was obtained from Title 6B Discretionary funds from the Washington

State Office of the Superintendent of Public Instruction, The William T. Grant Foundation, The Forest Foundation, The Ida McCeahearn Charitable Trust, and The Graduate School of the University of Washington. For the project with regular and special needs children, funding was provided solely from the Prevention Branch of the National Institute of Mental Health. Although the school districts were not required to provide a financial commitment, they were responsible for supporting teachers in providing time for curriculum use on a regular basis and allowing research staff access to collect data. Although this situation is not ideal for replication, the small commitment necessary for district participation likely leads to greater external validity of the findings.

Cost per student in the research version was estimated at $82 per year for the first year of full implementation. This included a full-time consultant/supervisor for each school during the first year and supported weekly observational sessions by the consultant as well as ongoing team meetings regarding implementation. After the first year, costs per student were substantially reduced (approximately half of year one costs) by using a half-time consultant. The costs covered in this estimate include the salary and benefits of a full-time consultant, training costs for teachers for three days, travel to training, and costs for curriculum and assorted materials including posters in the classroom and in other school locations. Not included in the above costs is the potential cost of continuing education or graduate credit for participating teachers, which can provide a significant motivation for active teacher participation.

The resources that are necessary for replications differ from those used in the initial randomized trials. Cost estimates for replications depend on how existing support staff (e.g., counselors, head teachers) are utilized in the program. If a counselor is utilized in the role of curriculum consultant (at least a .5 FTE), curriculum and training costs for the first year of operation for an elementary school would cost approximately $12,000, or $25 per student. Costs in later years would be substantially reduced to about $10 per student, given the expectation of low-to-moderate staff turnover. Thus, the cost over a three-year period would be approximately $15/student. All other personnel for the project (teachers) are already working and paid for by school district funds.

In the event that it is necessary to have an additional staff person hired to provide teacher consultation, the cost in year one would be approximately $80 per student. This cost would be reduced by half each subsequent year. Thus, the cost over a three-year period would be approximately $45 per student.

Resources Necessary

Necessary non-monetary resources include strong principal and parent support for the curriculum goals and a healthy school environment in which teachers work effectively within and across teams and grades. It is important to try to maintain stable principal leadership during the first few years of implementation. Further, it is critical that teachers and administrators see the implementation process as ongoing and requiring resources for a four to five year cycle.

Staffing and Supervision

Staffing for curriculum presentation is provided by the school teaching staff. It is strongly recommended that all teachers in a school actively participate in curriculum presentation and in the longer-term process of curriculum extension, integration, and revision. It is expected that curriculum lessons will be presented approximately three to four times per week. Teachers are given flexibility on when this time should be scheduled.

Consultation/supervision is provided by a full- or part-time curriculum consultant, depending upon the number of PATHS classrooms (a half-time consultant can supervise up to five classrooms). The curriculum consultant should have experience as an elementary school teacher or counselor, or have considerable experience consulting and working in the elementary school context. The consultant should have a strong background in child development. The consultant job requires sensitivity to the needs and stresses of teaching, experience with curriculum implementation, and the ability to form close working relationships with teachers, principals, and students.

Training of Staff

Teachers, support personnel, and administrative staff should conceive of training as an ongoing process. Initial orientation to the goals of the curriculum and to the objectives for training usually requires one hour and is best done in the spring prior to fall implementation. Initial training requires a two to three day workshop, preferably just before the beginning of the school year. During the initial training, the trainers and consultant meet after each day of the workshop to debrief the events and issues arising in their roles. In addition, it is expected that the consultants have read and reviewed the materials before the workshop begins.

Ongoing training generally consists of weekly or bi-weekly observations by the curriculum consultant, bi-weekly team or individual meetings led by the curriculum consultant, and whole school staff discussions (usually on a quarterly basis) regarding curriculum implementation, extension, and so on. In addition, it is extremely useful to have outside staff trainers participate in the following three ways: (1) by conducting the initial training sessions; (2) by providing phone support to the on-site curriculum consultant on a bi-weekly basis; and (3) by revisiting the implementation sites during the beginning of the second year of curriculum implementation. During the second and subsequent years, experienced teachers should also receive a one-half day review and booster session.

In successive years, experienced teachers and support staff are encouraged to take on the role of co-trainers for new teachers in the school. Thus, over a two or so year period, local trainers should have assumed control of the training and conduct of the curriculum implementation with technical assistance provided by outside trainers on an as-needed basis.

Implementation Problems

There are a variety of types of implementation problems that have occurred in different trials. Although decisions to participate in PATHS research trials (for regular education, special needs, and deaf classrooms) were based on building-wide or unit-based decision-making, agreement to participate rarely meant that 100 percent of the staff were enthusiastic. It has been common for some teachers (between 5 and 20 percent) to resist implementation; for example, by not always teaching the lessons, being poorly prepared, not informing the consultant of changes in teaching schedules for PATHS, "forgetting" to come to consultation meetings, stating that emotional competence is not something they should have to teach, and so on. In these cases, the resistance was best diminished by either the consultant developing a personal relationship with the teacher or the principal exerting strong and effective leadership. In the cases in which principals shifted between the decision process and implementation or in which a principal had poor relationships with the teachers, at least mild resistance continued and led to less than optimal implementation. A small percentage of teachers provided poor quality implementation regardless of principal leadership due to an inability to manage their classrooms or inexperience in teaching.

When we ask teachers to tell us what they like least about PATHS, the modal answer is "Using the Feeling Faces." We have heard many valid reasons for this such as: "The kids lose them all the time and constantly ask for new ones; they get all over the place; they take up room in and on the desks; some students want to talk about how they are feeling instead of getting their work done; there isn't enough time to talk to each child about how he or she is feeling." These are valid reasons and using the faces does take additional effort. However, another possible explanation is that some teachers are uncomfortable talking about and sharing feelings with their students. A number of very experienced PATHS teachers have told us that they were initially worried that they would "lose control" of their authority if they showed their feelings. They found just the opposite; as they began to calmly share their feelings, the classroom atmosphere became more positive.

The use of the feeling faces is an essential generalization strategy for building internal self-regulation and is an important tool in promoting cortical/brain integration (see Chapter 1 - Neurobiology and Brain Structuralization/Organization). As explained earlier, the faces help to create a link between the visual and experiential emotional processing in the right hemisphere and the verbally-mediated understanding in the left hemisphere (i.e., horizontal control), and help to build verbal self-control (i.e., vertical control). It is important to encourage the public display of feelings in a controlled context where they can be discussed and understood "in the moment" (i.e., while they are being felt).

Another concern that we have heard from teachers has involved the amount of time needed for effective implementation of PATHS. Teachers are pressed for time, and they fear that teaching PATHS as often and for as long as is optimal will detract from academic success. Because emotional competency is a relatively new aspect of the school curriculum, it is easy for teachers to view it as an elective of secondary importance. To counter this tendency, it is helpful for teachers, principals, and parents to learn that research findings indicate no deterioration in academic success and do show improvements in the area of non-verbal thinking skills. However, it is also necessary to address the legitimate concern of a pressurized classroom day, and acknowledge the preparation and classroom time needed for PATHS.

Monitoring Implementation and Treatment Integrity

Monitoring the quality and integrity of implementation is an essential, long-term process. In our research trials, this process was ensured in the following ways: (1) initial training, (2) ongoing consultation, (3) mid-year group teacher meetings, (4) second year booster training, and (5) regular contact with building principals. Initial teacher training involved a three-day workshop just prior to the school year. The training covered the theory/model underlying the curriculum, some basic developmental knowledge regarding emotions, emotional development, and brain organization, a review of the different units of the curriculum, video presentations of other teachers conducting PATHS lessons, live presentations of the lessons, small-group discussions, and active teacher role plays. In addition, teachers were encouraged during training to examine the scripting and presentation of the lessons and to consider ways of altering these to suit their own teaching styles, while still maintaining the general and specific goals of the lessons and its critical vocabulary. For example, a teacher might think of a new story (or a personal, historical, or current event) that might be a more relevant lead-in to a particular lesson than the one that is "standardized" in the curriculum.

Although it is critical for teachers to be active decision-makers in curriculum implementation, it is also necessary to maintain uniformity in the presentation of critical information. Thus, training strongly emphasized the importance of following the curriculum closely, and teachers were encouraged to utilize the actual scripts provided for each lesson, at least during the first year of teaching PATHS. In other words, teachers were told that they were free to translate PATHS ideas into their own words, but most teachers found that at least during the first year, the best strategy was to rely on the scripts. In addition, since most teachers had little or no background in emotional literacy, reading the scripts for the lessons ahead of time (i.e., prior to implementation) was important for their own learning of the material.

After training was completed, each teacher (grade level or school) was assigned a curriculum consultant/supervisor for ongoing consultation. The consultant had two regular contacts with each teacher. First, the consultant observed the teacher during one PATHS lesson each week, and afterwards, provided him or her with feedback. These observations occasionally took the format of team teaching or consultant demonstrations. However, the consultants were careful not to demonstrate too frequently, to avoid undermining the teacher's central role in curriculum delivery.

Things to Look for in the PATHS Consultation Process:

- **Preparation.** Is the teacher prepared to teach the lesson?
- **Enthusiasm.** Is the atmosphere one of positive affect, energy, and vitality?
- **Emotional Congruence.** Is there a good match between the teacher's affective behavior and what they are saying/signing?
- **Waiting time.** Does the teacher allow students sufficient time to think before they respond (not jumping too quickly to another child with their hand raised)?
- **Patience.** Is the teacher patient with the developing skills of the children in PATHS domains?
- **Appropriate Expectations.** Does the teacher appear to have appropriate expectations for his/her students?
- **Nature of Praising.** Does the teacher effectively utilize attributional praising (praise children for effort and ability for success and for lack of effort when there are difficulties)?
- **Dialoguing.** Is the teacher using problem-solving discussions at appropriate times (e.g., not as punishment or when everyone is upset)?
- **Fun!** Is PATHS fun?
- **Goals.** Is the teacher reaching the goal of the lesson (or part of the lesson used that day)?

Second, the consultant met with teachers in small groups for approximately 30-45 minutes each week to answer questions, review upcoming lessons, and allow for general troubleshooting. In addition to support and information related specifically to PATHS, the consultants also provided teachers with useful knowledge regarding child developmental issues, empathic strategies for successfully handling difficult behavioral problems in the classroom, reflective dialoguing skills, and so on.

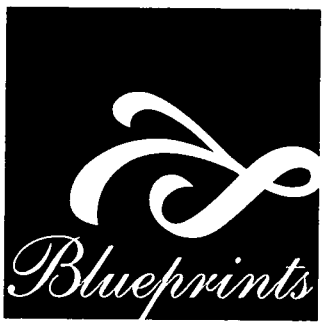
As the teachers came to see the consultants as valuable, supportive, and *nonjudgmental* (of especial importance) resources, the working relationships grew stronger, as did the teachers' commitments

to using PATHS. In other words, a very important component of consultation involved the consultants' use and modeling of PATHS processes during their interactions with the teachers, which in turn supported the teachers in passing these on to their students. Thus, we came to view the importance of the relationships of the consultants to the teachers as similar to the importance of the relationships of the teachers to their students.

In order to further monitor and provide ongoing feedback between teachers, a mid-year workshop was held at which teachers from different grades and/or schools met for an afternoon. These sessions allowed trainers to re-emphasize critical aspects of the curriculum, disseminate new information, highlight innovative ideas and materials developed by teachers, and create a forum for critical discussion regarding refinement and improvement.

At the beginning of the second year of implementation, a half-day or one-day booster session was provided. This gave teachers an opportunity to consciously reflect on their classroom practices with PATHS, consider how they could better integrate PATHS with other content areas, and discuss areas of concern with the consultants and trainers. These sessions also helped to maintain and create building-wide motivation to work as a community on implementation. This process was often facilitated by having key, respected teachers discuss their own commitment to the values, goals, and procedures of the curriculum.

As discussed earlier, regular contact with building level principals and support staff was also a critical issue in maintaining quality implementation. Consultants met on a regular basis with building administrators, counselors, and special teachers. This regular contact helped to prevent conflicts between curriculum use and other upcoming school activities (for example, the curriculum was not required during the weeks of achievement testing or on days in which children were dismissed early). Given the seemingly overwhelming number of new curricula and activities asked of schools, this regular contact also helped to create convergence of goals and procedures with drug and alcohol counselors, nurse and health educators, the school counselor, and so on. In addition, regular contact with the principal placed PATHS on the "front burner" of his/her consciousness and often led to greater principal involvement. This participation took such forms as visiting classrooms specifically to watch PATHS lessons, holding special lunches for best PATHS problem-solvers, utilizing the language of PATHS with students and staff, discussing its value with community leaders and parents, and so forth. Further, if the principal felt a problem brewing amongst the staff with regard to PATHS, he or she was often able to avert difficulties by initiating discussions with the consultant or by scheduling a discussion at a regular staff meeting. Finally, regular contact with principals led to a stronger collaborative relationship in which consultants often became advisors to principals on related issues regarding school climate, staff communication, school goals, and so on.



CHAPTER THREE
Evaluation

EVALUATION

The following studies present a brief overview of evaluation results from four investigator-led clinical trials. Table 3 provides a brief summary of these published studies on PATHS outcomes.

1. One Year Study of Regular Education and Special Needs Children – (Greenberg, M. T., Kusché, C. A., Cook, E. T., & Quamma, J. P., 1995)

This study examined the effects of the PATHS Curriculum on the development of emotional understanding (pre to post changes) in both regular education and special needs children ($n = 286$). Children were initially tested in either the spring or fall prior to the intervention year; they were then interviewed again during the following spring, approximately one month post-intervention. The children were attending 1st and 2nd grade at pretest and 2nd and 3rd grade at posttest. The sample included 57 percent White, 32 percent African American, and 11 percent other ethnic minority populations. Sixty seven percent of the children (192) were in regular education programs (2 intervention and 2 control schools), while 33 percent (94) were in self-contained special education classes across three urban and suburban districts. Within the special education sample, children were classified into the following categories according to school records: learning disabilities (44), mild mental retardation (23), severe behavior disorders (22), or multi-handicaps (5). The central measure of this study was the Kusché Affective Interview which was individually administered to all students at baseline and after one year of PATHS. This 30-40 minute interview assessed basic emotion vocabulary, definitions of emotions, recognition of emotions in self and others, and understanding how feelings are hidden, changed, and managed.

Results indicated that a one school year intervention (October–May) was effective in significantly improving children's range of affective vocabulary, their ability to provide appropriate personal examples of their experiences of basic feelings, their beliefs that they can hide, manage, and change their feelings, and their understanding of cues for recognizing feelings in others. In addition, among children at higher risk (special education), the intervention also significantly improved both their understanding of how others manage and hide their feelings and how feelings can be changed. Finally, among regular education children only, the intervention resulted in improved comprehension of complex feeling states. On the other hand, no significant effects were found with the metacognitive recognition of one's own feelings, understanding of the simultaneity of feelings, or understanding of how one can manage one's own feelings. The study also examined whether children with higher or lower ratings of teacher-rated problems showed greater improvement. In some instances, greater improvement was shown in children with higher teacher ratings of psychopathology. In general, it appears that one year of PATHS training most impacted the children's fluency and comfort in discussing basic feelings, as well as the children's "efficacy" beliefs about managing and changing feelings.

2. Long-term Study of Regular Education Children - (Greenberg & Kusché, 1996;Greenberg & Kusché, 1997; Greenberg & Kusché, 1998b, under review)

This study examined the effects of the PATHS Curriculum on the development of social-cognition, cognition, and behavior in a sample of 200 children in regular education at posttest, one-year, and two-year follow-up. Eighty-seven of the children received the intervention, while 113 were comparisons, and all of the children were in 2nd and 3rd grade classes at the time of post-testing. Four

schools were randomized with regard to intervention vs. control status, and there were no significant differences between the groups on outcome measures at the beginning of the intervention. Children were initially tested in either the spring or fall prior to the intervention year; they were then assessed each spring. The sample included 65 percent White, 21 percent African American, and 14 percent children from other ethnic minority populations. Measures included an interview of social-problem solving, two tests of non-verbal cognitive abilities, achievement testing, and teacher, parent, and child ratings of behavioral difficulties.

At posttest, results indicated that intervention children had significantly improved social problem-solving skills and emotional understanding compared to the matched controls. Intervention children were significantly less likely to provide aggressive solutions and more likely to provide prosocial solutions to interpersonal conflicts and dilemmas. In addition, the intervention children showed significant improvement on two tests of cognitive ability (a test of non-verbal analogies and a non-verbal test of planning skills). Teacher reports did not show differences in the children's behavior.

At one year follow-up, significant effects were again found for aspects of emotional understanding and interpersonal problem solving skills. Intervention children continued to show less aggressive and less passive solutions to problems and more non-confrontational (self-control) and prosocial solutions in contrast to comparison students. Significant differences were also found with the quality of planning ahead on a task of social planning, as well as on the non-verbal subtest of Coding on the WISC-R. There were no differences on teacher or self-reports of problem behavior.

At follow-up 2 (but not follow-up 1), significant differences were found on teacher ratings on the CBCL subscales of externalizing behavior problems and of total adaptive functioning, with intervention children showing lower externalizing scores and higher social/school functioning. In addition, intervention students self-reported a significantly lower rate of conduct problems and a trend towards lower symptoms of somatization, anxiety, and depression.

3. Long-term Study of Behaviorally At-Risk Children – (Greenberg & Kusché, 1996; Greenberg & Kusché, 1997; Greenberg & Kusché, 1998c, under review)

This study examined the effects of the PATHS Curriculum on the development of social-cognition, cognition, and behavior at posttest, one-year, and two-year follow-up in a sample of 108 behaviorally at-risk students (in grades 1 to 3 at time of pretest) who had been previously assigned by their schools to special education classes. Forty-nine children received the intervention and 59 children were comparisons. Fourteen schools were randomly assigned to intervention vs. control status, and there were no significant differences between the groups on outcome measures at the beginning of the intervention. Children were initially tested in either the spring or fall prior to the intervention year; they were assessed again each spring. The sample included 52 percent White, 40 percent African American, and 8 percent children from other ethnic minority populations. Measures included an interview of social-problem solving, two tests of non-verbal cognitive abilities, achievement testing, and teacher, parent, and child ratings of behavioral difficulties and competencies.

At posttest, results indicated that intervention children had significantly improved social problem-solving skills and emotional understanding compared to the matched controls. Intervention children were significantly less likely to provide aggressive solutions and more likely to provide solutions demonstrating self-control with regard to interpersonal conflicts and dilemmas. In addition, the

intervention children showed significant improvement on two tests of cognitive ability (a test of non-verbal analogies and a non-verbal test of planning skills). Although no differences were found on teacher ratings of externalizing behavior, significant differences were found for internalizing symptoms. In addition, teachers rated the intervention participants as showing better functioning with regard to frustration tolerance, assertiveness, task orientation, and peer social skills. Teachers also reported significantly more change in the intervention group on the following identified areas of concern; ability to stop and calm down, ability to resolve peer conflicts, ability to identify feelings, ability to identify problems, and empathy for others. There were no significant changes on either activity level or quality of school work. Finally, intervention students reported significantly fewer symptoms of depression.

At one year follow-up, intervention children showed less aggressive and less passive solutions to problems and more non-confrontational (self-control) and prosocial solutions in contrast to comparison students. Significant differences were also found on the quality of planning ahead on a task of social planning, as well on the non-verbal subtest of Coding on the WISC-R. In addition, intervention students reported a significantly lower rate of conduct problems, depressive symptoms, and somatic complaints at follow-up 1.

At follow-up 2 (but not follow-up 1), significant differences were found on teacher ratings on the CBCL subscales of internalizing behavior problems and externalizing behavior problems. This finding was primarily due to worsening of symptomology among the comparison group over time. In addition, intervention students self-reported a significantly lower rate of conduct problems and depression.

4. Metropolitan Seattle Study of Deaf Children (Greenberg & Kusché, 1993; Greenberg and Kusché, 1998a; Kusché, 1984)

The participants in this project consisted of 79 severely and profoundly hearing-impaired children who were enrolled in self-contained classrooms for deaf children (grades one through six) in six local elementary schools in the Seattle area. The participants represented approximately 85 percent of all of the deaf children who were served in the area and who also met the following criteria: (1) basic education occurred using both sign language and speech (Total Communication), (2) unaided hearing loss was > 60 decibels in the better ear averaged across the speech range, (3) deafness was diagnosed prior to 36 months of age, (4) non-verbal intelligence was greater than 75, and (5) no known significant additional handicaps were present. The children ranged in age from 67 to 146 months of age. The intervention and comparison groups did not differ significantly on relevant pretest variables. The sample was primarily White (83 percent), and the average child had a profound unaided hearing loss.

The study design was quasi-experimental. Schools were randomly assigned to intervention vs. wait-list control group status. After the first year, the intervention was replicated on the wait-list control children. Teachers were trained in the intervention model and provided PATHS lessons during most of one school year. Measures included an interview of social-problem solving, tests of non-verbal cognitive abilities, achievement testing, and teacher and parent ratings of behavioral difficulties and competencies.

Results indicated that the intervention led to significant improvement in students' social problem-solving skills, emotional recognition skills, and teacher and parent-rated social competence. Teacher ratings of

behavior indicated that there were significant improvements in social competence and in frustration tolerance. Results also indicated significant improvement in reading achievement and non-verbal planning skills in the intervention sample. There was no effect in this normative sample on teacher or parent-rated psychopathology. One and two year posttest results indicated maintenance of effects. Results with the wait-list control group indicated replication of effects in a second sample.

Mediational analyses were conducted to test the theoretical model that changes in understanding of emotions, ability to take others' perspectives, and social problem-solving skills were related to changes in behavioral outcome. Results indicated that (a) improvement in emotional understanding was related to lower parent report of lowered externalizing problems at home; (b) improvement in role-taking skills was related to higher teacher ratings of emotional adjustment, and reductions in behavior problems at school and at home; and (c) improvement in problem-solving was related to higher teacher ratings of emotional adjustment and social competence and decreases in behavior problems at home and school.

5. PATHS as a Universal Component in a Comprehensive Intervention Model for Violence Prevention: Fast Track (CPPRG, 1997; CPPRG, under review)

Curricula such as PATHS have often been touted as a means to prevent aggression, delinquency, and other adolescent problem behaviors. Although these curricula can be an important component of programs in violence prevention, it would be naïve to think that simply implementing a school-based curriculum could be adequate for solving these very complex social problems. There are a variety of risk factors involved in aggression, violence, substance use, and other adolescent problem behaviors that involve the individual, the family, the peer group, the school, the neighborhood and larger societal contexts, policies, and legislation. Further, it is clear that there is developmental continuity, and in many cases, adolescents who show serious aggression, violence, and substance abuse can be identified during the early school years. Especially with children who have individual risk factors (e.g., poor verbal and academic abilities, developmental delays, high activity levels, impulsivity, etc.), family factors (e.g., high family chaos/stress, poverty, family history of criminality, psychiatric problems, domestic violence, etc.), live in poor neighborhoods with numerous opportunities for illegal and antisocial activities, and experience few protective factors that would lead to prosocial activities and careful adult monitoring, comprehensive models of prevention are necessary to promote competence and prevent disorder.

The primary goal of the Fast Track model is to integrate the provision of universal (all children), selective (children at some risk), and indicated (children requiring significant intervention due to problems at a diagnostic level) services into a comprehensive model that involves the child, school, family, and community. Fast Track was designed to provide simultaneously two levels of child intervention during the elementary school years. Through a multi-stage screening process involving both teacher and parent reports during kindergarten, the 10 percent of children demonstrating the greatest degree of early conduct problems were selected for a series of interventions that included weekly parenting support classes, small-group social-skills interventions, academic tutoring, and home-visiting (Bierman, Greenberg & the Conduct Problems Prevention Research Group, 1996; McMahon, Slough & the Conduct Problems Prevention Research Group, 1996). Such interventions are believed to be necessary to both reduce risk factors and promote protective factors in children who are showing the "early-starter" model of conduct problems.

Simultaneous with the initiation of these interventions for the high-risk children and families, the universal intervention (the Fast Track PATHS Curriculum and behavioral consultation) was started in the classroom. There are two central reasons that integrated delivery of universal and indicated interventions should provide a synergistic effect. First, it is unlikely that effects of the selective interventions with the children and families will generalize to the school and classroom setting without providing support for these new skills in the school. By providing similar skills, cues, and a common language in both the selective and preventive interventions, teachers and other school staff are able to promote the generalization of skills to the classroom. Second, a universal intervention intended to promote the development of social competence in all children should lead to an improved classroom atmosphere that supports improved interpersonal relations for all students.

Fast Track is implemented in four American locations (Seattle, Washington; Nashville, Tennessee; Durham, North Carolina; and rural Pennsylvania), and in each location there are approximately 14 schools that were randomized equally to intervention vs. comparison conditions. The intervention was conducted in three successive years with three cohorts of first graders. There were 198 intervention classrooms and 180 matched comparisons across the three cohorts. These classrooms included approximately 9,000 children. Although there were substantial differences between sites in the degree of risk shown by their respective school locations, there was considerable risk in the average school. The percentage of children receiving free or reduced lunch was 55 percent and the mean percentage of ethnic minority children attending the schools was 49 percent. There were no demographic differences between intervention and control schools. Three types of measures were utilized: (1) peer-sociometric interviews with each child regarding the behavior of each child in the class, (2) teacher ratings of each child's behavior, and (3) ratings of the classroom atmosphere (10-item rating scale on an average of two hours per classroom). Analyses were conducted with the classroom as the unit of analysis.

Findings at the end of first grade indicated that in schools in which PATHS is operating there is improved social adaptation as indexed by more positive reports of the following dimensions as compared to matched comparison schools:

- Lower peer aggression scores by peer ratings (Sociometrics)
- Lower peer hyperactivity scores by peer ratings (Sociometrics)
- Lower teacher ratings of disruptive behavior (Teacher report)
- Improved classroom atmosphere (assessed by Independent Observers)

The project also examined how the quality of implementation (as rated by the curriculum consultants on a monthly basis) related to child outcomes. The consultants' ratings of how well PATHS concepts were taught was significantly related to the teachers' ratings of degree of classroom disruptive behavior, the students' abilities to remain task oriented, and the classrooms' overall atmosphere. Teacher openness to consultation with the PATHS consultant was also significantly related to teacher ratings of the students' abilities to remain task oriented and the classrooms' overall atmosphere.

This study leads to a number of conclusions. First, there were significant effects of the intervention from the viewpoints of all three independent raters (children, teachers, and independent observers). As the findings are convergent from three independent sources, it is highly likely that PATHS is affecting classroom processes. Second, effects were found not only for aggression, but also for more positive peer relations. Third, as there were no significant site by condition effects, there appear to

be no substantial differences in effects of intervention as a function of rural vs. urban school location or ethnic composition of the classrooms.

Fourth, although effects were found across raters, these effects are modest in size (usually between $p<.05$ and $p<.01$). This may in part be due to the fact that this was a carefully randomized trial and within schools, all teachers, independent of personal interest or ability, were assessed. Thus, teachers who were relatively ineffective, showed little enthusiasm, or completed only a portion of the curriculum were assessed as if they had completed the intervention; no intervention teachers were dropped for poor quality implementation, high resistance, or providing a low dosage. In this sense, this trial may provide good external validity in providing information on how this universal intervention might realistically affect an entire school community.

Fifth, the implementation/dosage analyses lend credence to the outcome effects. They indicate that the staff's ratings of how well teachers understand concepts and conduct lessons, as well as their openness to consultation, are all related to the teachers' ratings of mean classroom scores of aggression, social competence, and in some cases, peer ratings of classroom processes.

Finally, it should be recognized that the interpretation of these findings is a bit complicated by the fact that the universal intervention was delivered along with the selective intervention for children with early behavior problems. Although analysis with and without the high-risk children showed similar patterns, the classroom scores may not be entirely free of the impact that the selective intervention may have had on the high-risk children. Improvements in the high-risk children may reduce teacher stress and/or improve peer relations and thereby also possibly affect outcomes.

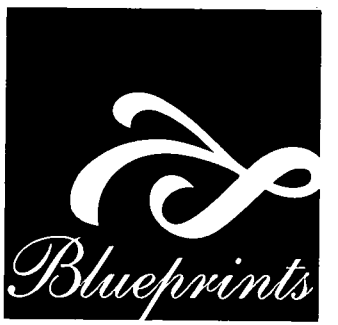
The results of this wide-scale implementation indicate that PATHS can be effectively integrated with a more comprehensive model of prevention and promotion programming that is linked to secondary prevention services for high-risk children and their families. This is a critical issue, as there is a need for greater integration between intervention programs at differing levels of intensity, service, and focus.

Summary of Effects

There have been four clinical trials of PATHS. Two have involved special needs students and two have involved regular education students. Across these trials, PATHS has been shown to improve protective factors (social cognitions, social and emotional competencies) and reduce behavioral risk (aggression and depression) across a wide variety of elementary school-aged children. Effects have also been found on some cognitive skills. In addition, these findings have shown cross-rater validity, as they have been reflected in teacher ratings, self-reports, child testing/interviewing, and independent ratings by classroom observers.

Table 3 — Evaluation Outcomes

n	Participants	Comparison/ Control Group	Assignment Procedure	Follow-up Period	Dependent Variable	Outcome	Reference
286	Regular and Special Education Students (Grades 1-3)	Regular Ed. - (4 schools) Special Ed. – (14 schools)	Random by classroom	1 month	Emotional understanding	Improvements in emotional vocabulary. Emotional awareness, understanding, and efficacy in managing emotions.	Greenberg et al, 1995
200	Regular Education Students (Grades 2 and 3)	4 schools (2 PATHS Program— 2 Controls)	Random, by school	1 month 1 year 2 years	Social cognitions Understanding emotions Cognitive ability Teacher ratings of social competence and behavior problems Self-ratings of behavior problems	**Posttest** Improvements in social problem solving and understanding of emotions. Improved non-verbal planning skills. **1 Year Follow-up** Same as posttest **2 Year Follow-up** Decreases in teacher and self-report of conduct problems.	Greenberg & Kusche, 1996; Greenberg & Kusche, 1997; Greenberg & Kusche, 1998b, under review
108	Special Needs Children in Resource Classrooms (Behavioral and Learning Difficulties – Grades 1-3)	Scattered among 14 schools (7 classes, PATHS Program— 7 classes Controls)	Random, by classroom	1 month 1 year 2 years	Social cognitions Understanding emotions Cognitive ability Teacher ratings of social competence and behavior problems Self-ratings of behavior problems	**Posttest** Improvements in social problem solving, emotions, non-verbal planning skills. Lower self-reported depression. Lower teacher-reported depression. **1 Year Follow-up** Same as posttest. Lower self-report of conduct problems. Lower teacher report of conduct problems. **2 Year Follow-up** Decreases in teacher and self-report of conduct problems and depression/anxiety.	Greenberg & Kusche, 1996; Greenberg & Kusche, 1997; Greenberg & Kusche, 1998c, under review
57	Deaf Children in Local Schools (Grades 1-6)	Waiting List Control Group	Random, by classroom	1 month 1 year 2 years	Social cognitions Understanding emotions Achievement Teacher ratings of social competence and behavior problems	Improvements in social problem solving and emotion recognition. Increase in reading achievement and non-verbal cognition. Improvement in teacher ratings of frustration tolerance and adjustment. Maintenance of effects at both follow-ups.	Greenberg & Kusche, 1993; Greenberg & Kusche, 1998a,; Kusche, 1984
7540	Regular Education First Graders In 4 U.S. Locations (Tenn, NC, WA, PA) (Fast Track Project)	14 schools at each site. (7 schools, PATHS Program— 7 schools Control)	Random, by matched sets of schools within each site	1 month	Peer sociometrics Observations of classroom atmosphere Teacher ratings of behavior problems	Lower rates of peer-rated aggression and hyperactivity. More positive classroom atmosphere. Lower rates of teacher rated aggression/conduct problems.	CPPRG, 1997; CPPRG, under review



CHAPTER FOUR
Program Replication

PROGRAM REPLICATION

Changes in PATHS Resulting From Outcome Studies and Field-Testing

Given the findings from previous implementations and evaluations, as well as feedback from numerous teachers and on-site consultants, a number of significant changes were made in the PATHS Curriculum prior to its publication. These have involved both global and specific modifications.

Global Changes in PATHS: Implementing a Multi-year Model

Although evaluations of PATHS to date have involved single year implementations, PATHS was designed as a multi-year program. Thus, research-based evaluations of efficacy of the model do not translate directly into real-world replications. Our experience as well as research on other school-based models indicates that one year of curricular intervention is insufficient to demonstrate the most beneficial long-term effects. Further, curriculum directors, principals, and teachers all recognize the need for multi-year curricular models that build on and reinforce learning as development. Using a social competence model such as PATHS for one year would be similar to teaching reading for a year; certainly, one would expect to find significant changes, but one would not expect continuing improvement without additional yearly instruction to increasingly more developmentally mature children. Thus, as has been recommended by experts in the field (Elias et. al, 1997), PATHS was designed to be implemented as a multi-year curriculum.

Specific Changes in PATHS

Focus on Positive Self-esteem and Peer Relations. During the first years of implementation, it became clear that the curriculum was too problem-focused and did not sufficiently target the areas of positive self-esteem and peer communication. As a result, PATHS now contains a daily activity which is used in each lesson entitled, "The PATHS Kid for Today" (adapted from Urbain, 1983). Each day a different child is chosen as the "PATHS Kid for Today." This child assists the teacher during the lesson. At the end of the lesson, the teacher and a number of students (usually 2) are chosen from volunteers to give the PATHS Kid a compliment. Finally, the child gives him or herself a compliment. These compliments are written down, posted in the room for the day, and later are taken home with a special parent letter. On the day when this activity is first introduced (one of the first lessons), the concept of complimenting and the different types of compliments are discussed. In addition, the teacher and children discuss how one feels when receiving a compliment and role-play what one can do when receiving a compliment. The PATHS Kid procedure becomes very rewarding to the students as they come to internalize the process.

The PATHS Kid is a daily system for building self-esteem, communication, and positive peer relations.

Earlier Introduction of Active Problem-solving. A second difficulty with the original version of PATHS was that a problem-solving model was not introduced until the last third of the curriculum. Although we believed that the Turtle Technique naturally led to dialoguing and problem-solving, the curriculum did not provide sufficient structure for either the teachers or students. Thus, teachers felt frustrated that the Problem-Solving section came so late in the curricular model.

To remedy this problem, as well as to provide an intermediate model for improving self control, the Control Signals Poster (CSP) is introduced near the beginning of the Feelings Section (approximately four to eight weeks after the Feelings and Relationship Unit begins). In a series of lessons, the children are introduced to the skills used for the different signals of the poster and thus are introduced to a simplified, active model of problem-solving. The teachers are encouraged to utilize the poster when problems occur in the class. In this way, children can be reminded to "go to the Red Light" as one form of problem-prevention. It is also suggested that extra posters be made or purchased and placed in other areas of the school (hallways, lunchroom, playground doors, school office, etc.) in order to facilitate generalization. As a further option, a series of informal problem-solving lessons are available in the Supplementary Unit which can be used in conjunction with the CSP to hold informal problem-solving meetings on a regular or as desired basis.

Handling Peer Conflict. In order to increase the curricular focus on peer relations, a number of new skills and concepts were introduced. First, several lessons were added that concern the nature of friendship and ways of making up after having conflict with a friend. A series of three new lessons were also constructed on the issues surrounding peer teasing. These lessons explore the different reasons people might tease others, how both the teaser and the target might feel given different situations, and different ways to cope with being teased.

Finally, three lessons were developed regarding the concepts of rejected, belonging, included, excluded, forgiving, and resentful, which explore these feelings in the context of peer group processes. These can easily be expanded to discuss related issues surrounding these same feelings (e.g., racial and cultural differences, handicapped status, etc.).

The Use of The Readiness Unit (Turtle). Given positive feedback from teachers, The Readiness Unit (Turtle Story and accompanying lessons) model is now recommended for consideration in regular education first-grade classrooms.

New Lessons on Feelings. More advanced lessons were added to the Feelings Unit to explore both the recognition and management of emotions. For example, lessons were provided to examine the verbal and non-verbal cues for recognizing emotions, the concept of keeping one's feelings private, and the various reasons for privacy, including the processes of hiding and changing feelings.

New Lessons on Manners. A series of lessons was written to cover the concept of manners, with the focus on considering how our behaviors affect other people and vice versa. The main goal of these lessons is not to teach specific skills as much as it is to help children internalize empathy and prosocial values (i.e., having genuine concern and consideration for the feelings of others). The different meanings and uses of the word "sorry" are also explored in some depth (e.g., remorse, compassion, genuine concern, forced compliance, etc.).

The Concept of Fairness. Over the course of PATHS, we found that issues regularly arose regarding the children's beliefs and judgments about fairness. A series of lessons was designed to target the concepts of fairness, responsibility, and intentionality. These lessons include stories that provide children with increasingly complex "moral dilemmas" from everyday contexts. Because of the advanced nature of these lessons, they are provided in the Supplemental Unit of PATHS. These topics form the basis of an initial sequence on the concept of moral judgment and philosophical thinking.

Greater Focus on Generalization. Although the original curriculum emphasized generalization procedures through the use of techniques such as the Turtle Reinforcement System, the use of Feeling Faces, and the Problem Box, there was relatively little focus on generalization outside of the classroom setting. Generalization to other settings has been facilitated in the following ways. First, the Control Signals Poster is designed to be used across the different school settings. To do so, it is necessary to provide some training/inservice to other teachers and school staff (office staff, cafeteria staff, playground personnel, etc.) regarding how to utilize the CSP for problem prevention and problem-solving. A second major avenue for generalization was to provide further information and training to parents, as discussed below.

Improved Linkages to Parents. Our findings from the research versions of PATHS showed that the majority of parents did not read the 17-page informational Parent Handbook that we sent home at the beginning of the curriculum, nor did the majority attend a parent informational meeting in the middle of the school year. As a result, we rewrote this information for parents into 13 mini parent modules (two-page informational sheets) to be sent home at relevant times during the course of the school year. These short summaries include descriptions of what the children are learning at school and suggestions for what parents can do at home. In addition, we added a number of "homework assignments" for children to do with their parents at home (e.g., ask your mom or dad about their responsibilities at home when they were your age).

Increase in the Number of Formal Problem-solving Steps. The original version of the curriculum contained only seven steps for problem-solving, which was based on other models available at the time. As we proceeded with our first implementation, however, it became apparent that these were not sufficient; critical steps were missed that led to misunderstanding and deficits in the effective performance of problem-solving. Thus, we added four additional steps with accompanying lessons. Planning skills were especially targeted, as lack of ability in planning ahead seemed to be a major stumbling block for many children (and deficits in this area would be predicted with less-than-optimal frontal lobe development).

Problem-solving and Self-control Review Lessons. A series of lessons covering formal problem-solving and self-control were written and included in the Supplementary Unit for review purposes for older students (usually grade 5 or possibly 4) who had completed the Problem-Solving Unit the previous year.

PATHS Replications

Replications with Special Needs Populations

During the past decade, there have been numerous classrooms and schools around the world that have implemented the PATHS Curriculum. Although these implementations have sometimes included some form of evaluation, they have not been in the form of randomized trials, and thus do not allow for conclusive findings.

Because the curriculum originated with a focus on deaf and hard-of-hearing children, and the deaf education world is well-connected internationally, its use spread rapidly to numerous countries. PATHS

PATHS has been replicated in numerous countries including The Netherlands, England, Canada, and Australia.

has been translated into Dutch, French, and Hebrew, and a separate Anglicized revision is currently being developed in Great Britain. A translation into Russian is now proceeding. These versions, as well as the American model, have been used in a variety of schools for deaf and special education children in The Netherlands, Belgium, Israel, Great Britain, Norway, Canada, Australia, and New Zealand, as well as in numerous cities in the United States.

British Replication with Deaf and Hearing-Impaired Children

A replication using a quasi-experimental design (waiting list control schools) has just been completed by Dr. Peter Hindley and colleagues at St. Georges Hospital in London (Hindley, Reeds, Jeffs, & McSweeney, 1998). This project involved eight primary schools for deaf children and primary Hearing Impaired Units (HIU's) in the South of England. A total of four schools and four HIU's agreed to take part in the introduction and evaluation of the curriculum. The eight schools and units were then randomized (separately for schools for deaf children and HIU's) into intervention and waiting-list comparison groups with four schools/units in each group. Baseline assessments of all the children were conducted in the fall of 1995. PATHS was introduced to Group 1 in 1995-96, and Group 2 (waiting-list controls) was introduced to the curriculum in the 1996-97 academic year. Post-testing occurred one year after implementation. Thus, Group 2 acted as a non-intervention comparison group for the first year of the project.

There were a total of 55 children in the project: Group 1 = 24 children, mean age 9.06; and Group 2 = 31 children, mean age 8.76 years. All of the children were severely to profoundly deaf and used either Sign Supported English or British Sign Language as their main means of communication. All of the children's parents were hearing.

As PATHS is designed as a multi-year model, there was insufficient time to adapt (to British culture) and evaluate the whole curriculum. The curriculum delivered the following components in Year 1: the entire Turtle Unit, the majority of the Feelings and Relationships Unit, and selected lessons from the Problem Solving Unit. The wording of lessons and culture specific concepts were adapted to suit a British setting. Schools taught the curriculum in a variety of ways. Some taught half hour periods every day of the week, while others taught two hour long periods. Parents were kept informed about developments in the classroom by regular letters, examples of work, and regular liaison with teachers.

Families were invited to a residential family weekend which provided parents with more information about PATHS, a variety of workshops on subjects varying from behavior management and emotional sign language to non-verbal communication. Deaf children took part in a variety of confidence building exercises, with and without their hearing siblings. Hearing siblings took part in a workshop on the experiences of having deaf brothers and sisters. Ten families from Group 1 took part in a residential family weekend designed to reinforce aspects of the PATHS curriculum.

In Great Britain, PATHS was found to enhance the emotional understanding and social competence of deaf children.

Results comparing the intervention and comparison children after one year indicated that there was a significant difference between the two groups in both emotional understanding and behavior. On all three measures utilized to assess children's ability to accurately recognize and label emotions, the intervention group showed a significantly more rapid

rate of development. Social-emotional adjustment was assessed by teacher report, and there were no group differences prior to intervention. Following one year of intervention, significant differences emerged with intervention children receiving higher scores on measures of self-image and emotional adjustment by teacher report. There were no significant effects on cognitive outcomes.

Replications with Regular Education Populations

Implementations of PATHS without research evaluation have taken place in a variety of public and private schools across the U.S., as well as in various other countries. Replication and evaluation of PATHS with regular elementary school-age children is currently ongoing in a number of different communities in Texas, using a quasi-experimental design (i.e., no control children were tested). All of these replications were funded by TCADA (the Texas Commission on Alcohol and Drug Abuse) for a two-year period. The communities of Austin and Lufkin targeted grades K and 1 during the first year (continuing with 1 and 2 for the second year), while Laredo chose to begin with grades 3 and 4 (continuing with 4 and 5). The paradigm utilized with all of these locations was somewhat different from previous use, in that professionals with mental health backgrounds were trained in the use of PATHS. These individuals subsequently trained and supervised the teachers in the use of PATHS, and also initiated the implementations, with the teachers phasing in over the first year. For research purposes, the three cities collaborated on the use of most measures and evaluation procedures.

At the time of writing, only the Year 1 midtesting had been analyzed. According to verbal report, these analyses showed that PATHS was very successfully implemented in all locations, with significant improvement found in the measures of emotional understanding and classroom behavior. Nonverbal intelligence (i.e., Block Design subtest on the WISC-R) also showed significant improvement for the older children in Laredo (the only site where this measure was used). Teachers further reported that their students had become better focused and attentive during test-taking, and they predicted that standardized academic testing would also show improvement.

Because each community is quite different, it is interesting to note some of the different issues that arose at each location. In Austin, the biggest complaint from the trainers involved difficulty with about 40 percent of the teachers being reluctant to take on the primary role as implementers. Although the vast majority of teachers stated that they liked PATHS, some of them were nevertheless resistant with regard to learning how to use it. The consultants felt that they should have stressed teacher expectations earlier in the year and should not have taught so much of the curriculum themselves, since some teachers apparently came to expect that this would continue. The consultants also felt that it was important for school principals to express their support of teaching emotional literacy to reinforce teachers' motivation. When teachers felt that the school administration supported PATHS, they were much more willing to put time and energy into using it. Some of the consultants also stated that they felt inadequate in sites that consisted primarily of minority students and would have liked to have co-facilitators of the same minority backgrounds in these settings.

Implementation in Lufkin was delayed in the beginning due to political issues in which the established community leadership displayed initial resistance to using PATHS. This obstacle was overcome, but in retrospect consultation with these individuals and obtaining their approval prior to implementation might have been helpful. Nevertheless, the implementation was considered very successful by the consultants.

Laredo was a unique situation in that the vast majority of students spoke Spanish at home and used English as a second language at school. The average social-economic status was also quite low in this community. Parents tended to work long hours and to have relatively lower levels of education, but there was a strong belief in family attachment. The original plan was to translate PATHS into Spanish, but this was too large a task to accomplish quickly, so translation was done only for parent letters, PATHS homework activities, and feeling labels. Nevertheless, the students were very engaged in the English implementation, and the trainers felt that the Spanish translations assisted greatly with parent awareness.

All three sites also chose to use the Turtle Unit during the first and second years. For Laredo, the students were older than is generally recommended for using Turtle. Nevertheless, they reported that Turtle was well received by the children and perceived as successful by the teachers. Anecdotal stories from Laredo indicated that out-of-control children and bullies showed much improvement, were internally motivated to change, and received support from the other children in their classrooms. Parents approached school personnel and asked what they were doing at school this year, because their children were showing so much improvement in behavior at home that they wanted to learn what was being taught. Thus, although no formal parent data were collected, observations suggested that PATHS was generalizing to behavior at home. Parents were also more willing to come to parenting meetings than in some other implementations.

All three sites reported that the PATHS Kid process was very effective in improving children's self-esteem and in promoting a strong sense of community in each classroom (i.e., children became much more understanding and supportive of one another. Finally, consultants reported that they felt that the classroom atmosphere improved greatly in the majority of cases.

In summary, all three sites reported feeling very pleased with their success in using PATHS. All felt that the children benefited greatly from the Turtle Unit, PATHS Kid, and the Feelings Unit. Research data supported these observations. Data from pre to posttesting in these three locations showed highly significant improvement in all aspects of classroom behavior (based on teacher ratings) and in emotional labeling (based on individual child testing). In addition, selected nonverbal IQ subtest scores (collected in Laredo only) also showed significant improvement. Year 2 implementation will begin in the fall of 1999.

Example of an Ongoing Training Model: The Netherlands Experience

A major issue in replicating curricular intervention involves adequate and ongoing training. The best example to date of an ongoing training model has been provided by the continuing implementation of PATHS in the Netherlands in both regular and special needs schools. Following the initial impetus of the Parents' Association for Deaf Children (FODOK), private and state funds were allocated for a translation of PATHS into Dutch.

After the translation was completed, a Dutch teacher training institute (The Seminarium voor Orthopedagogiek in Utrecht) allocated six years of continuous resources for the training of interested teachers. Training sessions are held on a regular basis in different locations in The Netherlands and coordinators of the local PATHS implementation have regular regional and/or national meetings. The central role of The Seminarium in providing a PATHS national coordinator who develops and facilitates various training programs has resulted in long-term continuity. There has been no published research on these implementations; however, a research project is currently under development.

As the Dutch training sessions also included teacher and support staff from Belgium, interest developed in having a French translation. This was accomplished in the early 1990's, and trainings are now provided in French in both Belgium and Northern France. There has been no published research on these implementations either. Translation into German is currently in progress.

Use of PATHS with Preschoolers

PATHS can be easily adapted for use with preschool-age children. Most programs that have used PATHS with these younger children have focused on using the Turtle Unit (Readiness and Self-Control) for self-control and on teaching the basic feeling lessons with numerous repetitions of feeling review lessons, simple role-plays, small group discussions of personal examples, and stories. These materials are usually supplemented by group reading of stories focused on the relevant emotions (these books can be selected from the bibliography supplied in the Instructional Manual of PATHS or selected by individual teachers).

Only one known evaluation has been conducted with this age group and it involved a quasi-experimental nonequivalent control group pretest-posttest design (Denham & Burton, 1996). A total of 70 children (ages 3 ½ to 5) in seven intervention preschool classes received a modified version of PATHS, along with relationship building through the use of "floor time" (Greenspan, 1992) and Interpersonal Cognitive Problem Solving (Shure & Spivak, 1982), from their teachers for a total of 32 weeks. They were compared to 60 children in the same preschools but in different classes who did not receive any intervention. Trained observer and teacher ratings indicated that at posttest, the intervention children showed decreases in negative emotion, greater involvement and more initiative in positive peer activity, and greater social improvement as compared to the nonintervention controls. Children who scored lowest on pretest scores (thus indicating the greatest need for intervention) were those who benefited the most with regard to peer skills, productiveness, and social competence. In addition, teachers' quarterly reports and weekly self-ratings indicated that they followed the program and that "their actions mattered" (p. 239).

Adapting PATHS for Use in After School-Care

PATHS has also been adapted for use in after school-care settings (both by itself and in conjunction with the use of PATHS in the classrooms earlier in the day), but no evaluation has been conducted in this setting. In one after school-care implementation, a subset of concepts was selected from PATHS, and each concept became the focus for a week. Thus, each week one of four trained consultants would teach one PATHS session to the children at his or her centers and would then provide an hour staffing for the after school-care personnel on that particular topic (after they had also observed the lesson). Lists of suggested activities were provided for the staff to use with the children throughout the week to reinforce the specific topics. The children enjoyed the PATHS sessions, and informal pre and posttest ratings by staff indicated their perceptions of improvements in peer sociability and behavioral functioning. The consultants felt that the staff meetings also provided much needed information on child development for the (mostly untrained) personnel at these centers.

The biggest problem associated with the use of PATHS in this setting involved a large degree of turnover in after school-care staff. It was not feasible to train staff to continue with the program because the average time remaining in a center was only a few months. Thus, this model seemed to be workable only with the ongoing use of outside trained consultants.

Benefits and Limitations

There are a number of benefits that can be provided by the use of effective preventive interventions in the early elementary years.

- First, *competence interventions can be effective.* The results of the PATHS analysis confirms and extends previous findings that competency-based, universal prevention trials can be an important part of comprehensive health promotion. Further, with minor modifications, a fundamentally similar model can also be used as a targeted intervention for children who have already been identified as having problems in learning, behavior, or both. This combined set of findings has important implications for the use of such curricula in schools that utilize an inclusion model for fully integrating special needs children.

- Second, *teachers can be trained and supported to effectively deliver such a curriculum on a regular basis* as part of their mainstream curriculum. Although a possible critique of such an approach is that it takes away time that could be used for greater academic skill training in content areas, no study has shown any negative effects on achievement as a result of regular curriculum delivery. In fact, findings indicated that PATHS significantly improved non-verbal problem solving skills in a variety of populations.

- Third, school-based *social competence curricula can be integrated into more comprehensive models* of school and community programs that intend to promote competence and prevent psychopathology and problem behavior in all children.

- Fourth, *children can be empowered to change their own maladaptive behaviors and feelings* of distress. This is crucial for emotional health and daily functioning in the present, as well as in the future. Although PATHS is not a form of therapy, for the children who are in need of treatment, but will never receive it, a curriculum of this type can provide educational information of great value.

However, there are a number of limitations that should be acknowledged. Thus far, *PATHS as well as other school-based interventions have had limited effects on behavior in families*. As indicated by the findings reported from parents, school-based interventions without sufficient contact with parents are limited in effect. Although the lack of generalization to home is a well-known finding in this area of research, our efforts to inform and advise parents on how to support children's social competence were insufficient. It is quite difficult to figure out how to surmount the significant problems in service-delivery to parents, but this is clearly an area in need of further research.

While the results for both normal and special needs children indicate significant effects on some aspects of behavior from both teacher and self-reports, no such effects were found for either group by parent report. In other words, parents did not observe differences at either posttest or follow-up in either risk group. Thus, although it is likely that there were real changes in student behavior in the school setting, it does not appear to have generalized to the home. It is possible that real change did occur at home but was not observed due to parental bias in report or poor choice of measurements used with parents (i.e., focused on ratings of psychopathology rather than more typical child behavior), but this is not the most likely explanation.

Whatever the case, these data point to weakness in the parental/home linkage component of the intervention. In the evaluated version of PATHS (see Evaluation section), the parental component included: (1) distribution of a 17-page parent handbook that was intended to provide information on essential PATHS concepts throughout the year and which included suggestions for how to support PATHS skill development at home, (2) a number of homework activities devised to gain at least minimal parent participation in intervention activities, and (3) one informational meeting held at most schools.

Our own assessment of parental involvement included assessment of parent attendance at informational meetings, a letter survey of parents interest in the information sent home, and discussions with teachers regarding parent involvement in homework activities. These assessments indicated that approximately 25-30 percent of parents attended an informational meeting, approximately 30-35 percent of parents read the informational handbook, and a similar number were likely to have participated in homework activities. Although these rates are "expected," it is likely that those parents who were involved had those children at least risk. Parents with the lowest levels of achievement and social class, and having the most family chaos and transition were probably least likely to be impacted by our family information. It is apparent that other strategies are needed in order to reach the parents who most needed the information.

As a result of the research findings, we added the following new components to the published version of PATHS. First, we have included 13 different two–page informational sheets to be sent home with children at different times of the year to discuss the major components of the curriculum; these provide parents with simple suggestions of things that they can do at home to support their child's new skills. Second, we have provided regular home activities for children to engage in with their parents. Third, there is a chapter in the *Instructional Manual* devoted to working with parents.

An additional aspect of parental involvement subsequently utilized by some teachers involved having mini-training sessions for selected parent volunteers who then participated during PATHS lessons. This participation helped parents learn PATHS concepts and allowed better use of small group discussions. A similar idea for promoting parent learning involved inviting the parents of each PATHS Kid to observe the lesson for that day. Videotapes of PATHS lessons, especially role-plays and short productions by the children, were also successful for increasing parent attendance at PATHS informational meetings.

Practical Suggestions for Starting a Replication

The steps for introducing and sustaining programs in social-emotional learning are well articulated in a recent volume (Elias et al., 1997). Here we add guidelines from experiences with the PATHS Curriculum.

Administrative support and planning. It is clear that school-based social competence promotion models are likely to be most effective when they are undertaken on a school-wide basis. Because we have been involved in implementations under conditions involving whole elementary schools, single grades in a school, or only special needs classrooms, it is possible to compare these experiences. There are a number of reasons why school-wide implementations are likely to be more successful than partial implementations; these include an increased probability for generalization, continuity across grades, and greater opportunities for training and support.

However, school-wide implementation does necessarily mean that all teachers begin to utilize the curriculum in the first year of implementation. Rather, it means that a larger, systematic plan is in place to expand across time. Often it is advisable to begin on a pilot basis with a particular grade or grades or team of teachers who are most interested and responsive to the idea. Time and experience are necessary for a program's growth. It is critical that teachers and administrators see the implementation process as one that is ongoing and for which resources need to be devoted for at least a four to five year cycle.

Similarly, in a large school district, we would not recommend training many schools initially. Instead, we recommend choosing a few schools that have effective, positive, stable leadership and a strong interest in social competence promotion. When successful implementation occurs at these schools, these schools and teachers can provide models and training for other schools within the district.

The role of school administration. School administrators play a key role in supporting the coordination and implementation of social competence promotion programs such as PATHS throughout an entire school or district. Because administrators are such key change agents in the ecology of the educational system, it is very beneficial when the administration holds a favorable attitude towards undertaking a new curriculum. However, it is critical that teachers in each school, in concert with the principal, also agree independently to implement the program. If the program is implemented due to considerable outside pressure, rather than as a result of building-based concerns and goals, it is likely to fail.

School administrators play a key role in the success of curriculum implementation. Principals play a key role in providing incentives and recognition for teachers who implement PATHS.

Because administrators are especially significant in establishing both the policies and general ambiance of the entire school system, they can contribute greatly to the success or failure of any program, PATHS being no exception. For this reason, we agree with other researchers that mental health prevention programs such as our own are unlikely to be effectively implemented and maintained without forward planning on a school and/or district-wide basis. In this regard, social-emotional competence programs that are clearly aligned with district goals are most likely to succeed.

It is also important to maintain stable principal leadership during the first few years of implementation. Administrators, especially principals, can be very helpful in providing teachers with positive incentives for using PATHS (e.g., verbal encouragement, clock or credit hours for meetings, and time for curriculum replication, etc.). They are also important liaisons in promoting a positive attitude towards PATHS among parents and the larger community (e.g., with parent orientation meetings, contacts with public officials, etc.). In addition, coordination between classroom teachers and other personnel can be facilitated by an active, pro-PATHS administration (e.g., encouraging discussions during staff meetings, coordinating with parent educators and school psychologists, etc.). Changes in students' behaviors can also be noted and positively reinforced by administrators, both privately (e.g., during chance observations) and publicly (e.g., at school assemblies).

In addition to strong principal leadership, parent support for the curriculum goals and a healthy school environment in which teachers work effectively within and across teams and grades is important. A caring and supportive classroom climate is a key element in effect social-emotional programming.

Teacher factors. Although the use of the curriculum manual is a critical component of the intervention, we believe that the ultimate effectiveness of the curriculum rests on the manner and attitude with which the teacher and assistant interact with the children. If the lessons are taught in a didactic or formal manner with a lack of genuineness, or as "just more lessons," we would predict little student improvement. Therefore, such factors as modeling, sharing of emotions with the children, and establishing an atmosphere of respect for the beliefs and feelings of others are crucial for successful implementation. Further, the recognition on a daily basis that all of us encounter both interpersonal problems and uncomfortable emotions is important in helping children to see that their own experiences are normal, not deviant. These "process" issues regarding teacher and support staff attitudes toward the curriculum, and more globally towards the goals of education and the role of the teacher in general, are vital; they can be seen as analogous in importance to the influence of "nonspecific factors" in psychotherapy outcome research.

The PATHS model and its theoretical base focus on the development of adaptive personality through the gradual growth and integration of affective, cognitive, and behavioral skills. As such, our model focuses primarily on the individual. Although we have emphasized that the quality of the child's interactions with the environment is important to outcomes, we have placed less emphasis on both the conceptualization and measurement of environmental factors.

When an intervention is introduced into a complex and conservative system such as a school, considerations about ecological change immediately become important. One might conceptualize the PATHS model as attempting to create an ideology regarding affect, communication, and problem-solving. This ideology is broader than the specific curricular lessons and includes the following values: (1) that it is important to engage a child's affect with salient instruction, (2) that it is necessary to model and teach strategies by which affect can be appropriately recognized, mediated, and modulated, (3) that one must teach to the "whole person" and recognize that the feelings of both the teacher and student are critical to success, and (4) that teaching thinking skills is a process that should occur in both interpersonal contexts and during traditional academic time. Further, the intervention seeks to begin the process of promoting this ideology across persons, settings, and time.

Consultation and training. The use of a formal, structured curriculum for social-emotional development and an open, conversational teaching style are often new to the teachers we worked with, and may even have been somewhat at odds with their educational training. In addition, teaching in general is a stressful occupation, and teachers often feel burdened when asked to take on additional work. Thus, it is very beneficial to provide emotional support to teachers so that they have commensurate reserves to give to their students (a "trickle-down effect" that really works!). For these reasons, we believe that the in-depth training, as well as the on-site consultation/supervision, was very important for the successful implementation of the curriculum. Teachers who have worked with us have remarked that without the workshop training and ongoing supervision, they would have had difficulty using the curriculum "correctly" and their new skills would have quickly deteriorated. However, it should also be noted that due to time constraints and multiple demands, the same teachers who strongly supported this model only reluctantly attended the necessary workshops and ongoing meetings.

On-site consultation and training help to ensure effective program implementation.

We found that on-site consultation/supervision on a once-per-week basis during the first year was essential; in the second year of implementation, it was feasible to have meetings on a bi-weekly basis. Consultants observed the lessons as they were taught and offered suggestions to the teachers based on their observations. Occasionally, the consultant would switch roles and teach lessons while the teacher observed. This role-reversal served four purposes; (1) it provided a positive model for increasing teacher effectiveness, (2) it increased the skills of consultants and allowed them to experience the special nature and difficulties of each classroom, (3) it increased the empathy of the consultant for the nature of teaching the lessons, and (4) it achieved greater balance in the teacher-consultant relationship by allowing the teacher to provide feedback on the consultant's performance. Many teachers reported that they relied on the consultants for both information and support, which facilitated their exploration of new teaching strategies and ways of relating to their students. In summary, we found both training and supervision to be crucially important components for effective implementation. ***The importance of the development of positive, supportive, and respectful relationships between consultants and teachers cannot be stressed enough.***

An important issue in training and implementation is determining the grade in which the program should begin. Should schools begin PATHS with grades K and 1, or grades 1 and 2, and continue implementation with these children on a yearly basis, or should they begin PATHS with all of the students in the school, and adjust the curriculum as needed for the students in higher grades who don't have the foundation necessary for the age-appropriate material? This is a question that requires considerable attention when planning ahead for using PATHS.

If the first option is selected, teacher training needs to be undertaken yearly with the subsequent higher-grade teachers as the children advance. If the second option is chosen, the older students will need to be taught initial lessons that are more age-appropriate during the first few years of implementation. The higher-grade teachers will need to make adjustments in curriculum content that is covered as cohorts change (i.e., as the younger children mature, they will have information and skills that the older children did not have, and will require more advanced material). This process would be similar to the first introduction of any multi-year curriculum (e.g., reading, writing, math, etc.) that had not been taught before and requires consideration of a variety of factors by each group designing their own implementation strategy.

Generalization and Maintenance of Learning. The transfer of learning from the training situation to daily life, or "generalization," is crucial for the success of any educational program. Moreover, research has repeatedly shown that a lack of "programming for generalization" is an area in which most socio-educational programs have failed in the past. In order for learned information to be successfully utilized outside of the classroom, children must internalize the understanding and skills they have been taught. Further, opportunities must be created in which to practice these skills (Hawkins and Weis, 1985). For these reasons, generalization strategies were built into the curriculum, and great emphasis was placed on the importance of these components.

It is critical that teachers recognize and support the transfer of problem-solving skills from PATHS to real-world situations.

Although PATHS lessons provide the children with instruction and practice on techniques for self-control, emotional understanding, and problem-solving, the transfer of these skills to daily life is greatly facilitated by reintroducing the information in a variety of settings

and situations. Using different natural settings (classroom, playground, lunchroom, etc.) and real-life situations during the remainder of the school day, teachers can apply valuable and easily implemented generalization principles to innumerable examples to enhance the learning process. By remaining alert to these naturally-occurring situations, teachers and support staff can remind or instruct their students about particular concepts or skills when they are actually being demonstrated or are actually needed; in other words, teachers can educate and reinforce their students during the "teachable moment."

Bridging to other academic curricula. Many of the specific skills used during PATHS can be applied to other aspects of educational instruction. For example, self-control and verbal mediation are important for learning throughout the day, but they may be especially important during Arithmetic and Reading, since distractibility, inattention, and impulsivity are especially problematic in these subject areas. Memory encoding strategies used in PATHS can be generalized for use during spelling, and hierarchical classification can be used to structure concepts and ideas in a variety of subjects. The Who, What, Where, Why paradigm from the Problem-Solving Section of PATHS can be adapted when teaching Language Arts and creative writing, and a number of PATHS activities can be adapted for art lessons.

Emotional identification and the analytic reasoning of problem-solving can similarly be utilized with history lessons, social studies, and current events, and can help make the facts more relevant for students (e.g., "How do you think the colonists felt when they threw the tea into the Boston Harbor? Why did they feel that way? Did they have a problem? Do you think they picked a good solution?"; "How do you think the President felt when the plane was hijacked? What did he decide to do about it? Do you think that was a good plan?"; etc.). The general problem-solving outline can also be followed in thinking through "the scientific process" or when discussing a classroom film or movie. The more frequently the children apply their skills to reality-based situations, the more automatic or unconscious their newly acquired modes of responding will become, and hence, the more likely these ways of relating to the world will become integrated as part of their "normal," everyday functioning.

In order for social skills/competence training to be successful, we believe that newly learned skills must be utilized throughout the classroom day, and ample opportunities need to be provided for practice. Thus, throughout the curriculum, procedures and activities are outlined in order to facilitate generalization to academic as well as to non-academic areas. Without such generalization training, we believe that long-term change and maintenance are unlikely. These issues are discussed in greater detail in *The PATHS Instructional Manual.*

Future Directions

Curriculum Development and Extension

A curriculum model is always in process and should be considered a living document that is extended and revised to meet new needs and contexts. Pilot versions of new aspects of the curriculum are now being field tested that (1) are culturally relevant to urban American contexts, (2) utilize video as a regular supplement to lessons, (3) provide further integration between language arts and PATHS by incorporating the extended use of children's literature, (4) include more in-depth focus on such topics as friendship and peer relations, (5) encourage the use of a Feelings Dictionary beginning in grade 3, (6) provide units on organizational and study skills in grade 4-5, (7) extend

focus on the issue of goals and identity, and (8) include new units on social responsibility that integrate history and current events with character development.

The Coordination of Primary and Secondary Intervention : Moving toward more Integrated and Effective Models

Further work is being developed to coordinate the use of the PATHS model (a primary or universal model that targets all students) with secondary or targeted intervention programs for students who are at high risk for dysfunctional behavior. It is likely that coordinated implementation of both levels of intervention will prove beneficial to the efficacy of each.

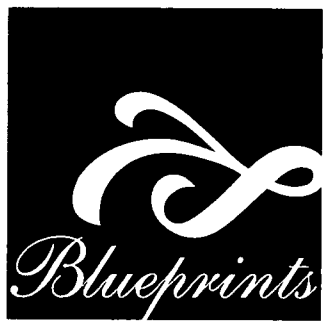
There are at least four components necessary for such an integrated service delivery model. First, it would be necessary for a school or system to have an active, accepted philosophy regarding the importance of emotional and social competence as a critical component of education. Second, a universal model of prevention (i.e., one that targets all students) would be adopted at the classroom level. Third, after initiation of the universal model, one would identify selection criteria for the identification of children who require a more focused, and possibly different small-group model. It would appear sensible that at least one criteria for further intervention would be lack of response to the universal model. That is, ongoing results of the universal program might determine which children would require a selected intervention. One would also expect that parent/family involvement would also differ at these different levels, with greater parent involvement for children requiring the selected intervention. Fourth, the secondary intervention would be designed to work in coordination with the primary intervention such that both support and generalize each other.

The Need for Social and Emotional Competence for All Children

During the past century the world has changed in an astounding manner. Along with a dramatic rate of growth in the world population, urbanization, shifting economies, and family and community fragmentation have led to increased stress, violence, and other social and interpersonal difficulties. Living effectively in a complex and rapidly changing social and economic world requires self-awareness, effective communication, and well-developed problem-solving skills. These facts make it imperative for all children to work on developing their social and emotional intelligence, because as adults, they will be faced with the issues we have neither solved nor even considered.

When we began the 20th century, reading literacy was becoming a necessity, but only relatively recently has reading (or even education in general) been crucial for economic and social well-being. Moreover, as we begin the 21st century, the same applies for emotional competency. In short, in order to be adequately prepared for their adult lives, our children need to be emotionally literate.

Thus, the most important direction we envision for the future is the implementation of social and emotional development programs for children of all ages, beginning as early as possible, as well as for parents, and all other interested adults. PATHS is limited to use with preschool and elementary-school aged children, and so can only partially fulfill this future goal, but it would seem wise to begin emotional literacy training for all parents prior to conception and to continue it throughout their children's development. Obviously, this would require the development and coordination of more comprehensive programs, as well as an earnest commitment by educators and legislators to their implementation. This process has already begun, and hopefully, will continue to develop over the next decades.



Appendices

APPENDIX A

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Full citations are located at the end of the document.

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APPENDIX B

THE PATHS CURRICULUM

READINESS AND SELF-CONTROL UNIT

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FEELINGS AND RELATIONSHIPS UNIT

Volume 1

Table of Contents

FEELINGS AND RELATIONSHIPS UNIT

Volume 2

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FEELINGS AND RELATIONSHIPS UNIT

Volume 3

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PROBLEM-SOLVING UNIT

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PROBLEM-SOLVING UNIT

Volume 4

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SUPPLEMENTARY UNIT

Volume 5

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SUPPLEMENTARY UNIT

Volume 5

Table of Contents (continued)

APPENDIX C

PATHS Curriculum Instructional Manual

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APPENDIX D

Division of PATHS Lessons into Developmental Units

PATHS Key Foundation Unit:
(Rules, PATHS Kid, Anger Management/Control Signals, Informal PS,- Lessons 1, 2, 11-12, 90-92, 89)
Grades K, 1, 2, 3, 4

Turtle Unit (Volume 1)
Grades K and/or 1 (or Grade K-3 Special Needs)

Basic Feelings
(Happy, Sad, Private, Fine, Excited, Tired, Mad/Angry, Scared, Surprised, Like/Don't Like, Love, Hate - Lessons 3-5, 7-9, 14-16, 18-20, 6, 13, 22)
Grades K, 1, 2, possibly 3

Intermediate Feelings
(Disgusted/Delighted, Frustrated, Disappointed/Hopeful, Proud/Ashamed, Guilty, Curious/Bored, Confused/Worried/Sure, Anxious/Calm, Shy/Lonely, Intensity - Lessons 10, 15-17, 21, 23-32)
Grades 1, 2, 3

Advanced Feelings
(Embarrassed/Humiliated, Jealous/Content, Greedy/Selfish/Generous, Malicious/Kind, Rejected/Included, Excluded, Forgiving/Resentful and related review lessons
- Lessons 33, 48, 50-54, 55-56)
Grades 2, 3, 4

Manners
(Intentionality & Manners - Lessons 38-44)
Grades 2, 3, 4

Relationships
(Friendship, Teasing, Fairness - 95-101, 112-119)
Grades 2, 3, 4, 5

Advanced Emotional Intelligence
(Observing Clues, Privacy, Hiding Feelings, Changing Feelings - Lessons 35-36, 45-47)
Grades 4, 5, 6

Formal Problem-Solving
(all of Vol. 4, lessons 57-88) Grades 4, 5

Review lessons for Self-Control & Problem Solving
(Lessons 93-94, 102-111)
Grades 5, 6 - but only after having already had Formal Problem Solving Sequence)

Teaching Manual [all grades]

APPENDIX E

Guilty

Lesson 26

GENERAL OBJECTIVES ..... To informally introduce the concept of responsibility
To further emphasize the importance of self-evaluation

SPECIFIC OBJECTIVE ..... To introduce the concept of GUILTY

MATERIALS ..... Feelings Chart
Pictures 26A - 26H
Photographs 51 - 52
Story: Sandy and the Gum
Guilty Feeling Face (1 blue) for each child & finished example
Feeling Faces: Angry, Frustrated, Guilty, Proud

NOTE ..... * The concept of guilt is very complex and difficult, but also extremely important for children to understand. If children frequently feel guilty for things that they are not really responsible for, they may feel anxious and/or unhappy. At the other extreme, children who do not feel guilty when they should have an equally serious problem and are at risk for delinquency, acting out behavior problems, and so forth. In both cases, the problems become more difficult to correct as the children get older. In other words, helping children learn to achieve a healthy balance between the two extremes is very important for emotional health. We therefore believe that this is an especially important lesson and urge you to take your time in discussing these ideas with your students.

PROCEDURE ..... Today during PATHS Time we are going to talk about a new feeling called guilty. Point to the Guilty Feeling Face on the Feelings Chart and write the word GUILTY on the board or overhead.

Guilty is the way we feel when we do something wrong or something we know we are not supposed to do and we feel badly inside about having done it. For example, sometimes we hurt other people and then we feel sorry that we hurt them. Then we feel guilty about what we did. Feeling guilty is sort of like feeling ashamed, sorry, and anxious all at the same time.

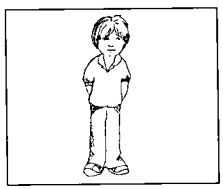
Take the Guilty Feeling Face out of the Feelings Chart and show it to the class. This face shows someone who is feeling guilty. Do you think that guilty feels comfortable or uncomfortable? Elicit responses (uncomfortable).

Yes, when we feel guilty, we feel uncomfortable inside, so I'll ask _____ (the PATHS Kid) to put the Guilty Feeling Face on the blue side of the Feelings Chart. Ask the PATHS Kid to replace the Guilty Face in the blue side of the Feelings Chart.

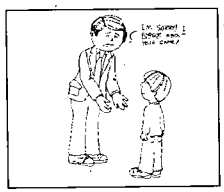
Feeling guilty is a signal that tells us that we think that we did something wrong. Guilt tells us that we are responsible for doing a wrong thing. For example, if I hit my friend on purpose because I was mad at her, I would feel ashamed of myself and sorry that I hit her. I would know that it was my fault. I would feel guilty for having done that.

Display Photographs 51 and 52 one at a time: Here are some photographs of people who feel guilty. Point out the features that indicate guilt (e.g., lowered eyes, lowered lips, hanging head, slumped body, etc.). Model as needed for further clarification or demonstration.

Show Pictures 26A and 26B one at a time:



26A. This boy feels guilty because he went to his friend's house to play, even though his mother told him not to go. He feels guilty because he disobeyed his mother. You can see that his eyes, eyebrows, and mouth are lowered and he's standing with his hands behind his back like this (model).



26B. This man feels guilty because he forgot about his son's soccer game. He feels sorry because he thinks he hurt his son's feelings. His face looks upset and guilty and his body language looks like he's asking his son to forgive him (explain further if needed).

Now let's practice the word GUILTY together. Remember to try to look and feel guilty while we practice.

Say/sign and spell/fingerspell the word GUILTY twice:
GUILTY, G-U-I-L-T-Y, GUILTY, G-U-I-L-T-Y.
Say/sign the sentence: I FEEL GUILTY.

Great job! Now I want to read a story to you about a little boy who knows what it's like to feel guilty. The name of the story is "Sandy and the Gum."

SANDY AND THE GUM

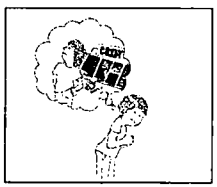
Sandy was a little boy with curly hair and big green eyes. Ever since he could remember, Sandy's mother had always told him that he should never take anything that didn't belong to him. His mother also told him that he should never take anything from the store unless he paid for it first. That was called "stealing."

One day, Sandy's mother took him to the grocery store. He asked his mother to buy him some gum, but she said, "No." Sandy felt very angry and frustrated. Show your Angry and Frustrated Feeling Faces.

Sandy started to whine and beg. "Please buy me some gum, Mom." Show Picture 26C.

Mother was beginning to get mad. Show your Mad/Angry Feeling Face. "No! Now be quiet. I have our shopping to do."

Mother walked away, while Sandy stood looking at the gum. He really wanted that gum a lot, and he was feeling very angry. Show your Mad/Angry Feeling Face again.



Sandy thought, "OK, if my mom won't buy it for me, then I'll just take it!" He reached over and put the gum in his pocket. Show Picture 26D.

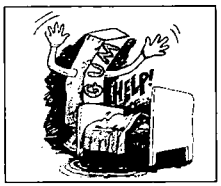
Sandy knew that he shouldn't do that, he knew he wasn't supposed to, but he wanted that gum very much, so he did it anyway. His mother didn't see him do it. In fact, no one knew he had taken the gum except for Sandy.

After Mother and Sandy got home, Sandy went outside to play. He took the gum out of his pocket, but he couldn't put it in his mouth. He felt very upset inside. He knew he had done something wrong, and he felt very bad about it. Sandy was feeling guilty. Show your Guilty Feeling Face.

That night, Sandy couldn't eat dinner. Sandy's mother asked, "Are you sick Sandy?"

Sandy replied, "I don't feel good, may I be excused, please?"

Sandy was still feeling guilty. Show your Guilty Feeling Face again.



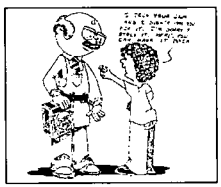
Sandy went to bed, but he couldn't fall asleep. After a long time, he began to have a scary dream: It was a nightmare. A piece of gum, as big as a man, had a very angry face and was chasing him. He ran and ran, but the Gum Man kept running after him. Sandy woke up crying and screaming. Show Picture 26E.

Mother ran into Sandy's bedroom. "What's the matter? What's wrong?" she asked.

Sandy cried even harder. "I took the gum—I stole it—and now the Gum Man is going to get me. I'm sorry. I'm sorry I was bad."

Mother saw the gum next to Sandy's bed and she understood. "Sandy," she said, "you did something you weren't supposed to do, and now you feel sorry inside. You feel guilty. Show your Guilty Feeling Face again. That's why you had that nightmare. Tomorrow we will go to the store and do the right thing. We will return the gum. Even though returning the gum will be a very hard thing to do, you will feel better after you do it."

The next day, Mother took Sandy back to the store. The man at the store looked bigger than he used to. And he wasn't smiling like he always did before.



Sandy hung his head and looked at the floor. Then he said, "I took your gum and I didn't pay you for it. I'm sorry I stole it. Here, you can have it back." Show Picture 26F.

The Store Man took the gum and said, "Stealing is a very bad thing to do."

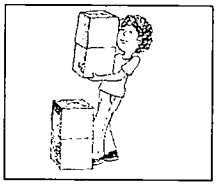
Sandy had big tears in his eyes. "I know, I feel very guilty." Show your Guilty Feeling Face again. The Store Man looked at Sandy. "Well, I can see that you are sorry now. Maybe you would like to earn the gum."

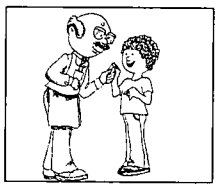
"Yes!" said Sandy.

"OK," said the Store Man. "I just happen to need some help right now. If you stack these boxes for me, I will pay you with this gum. Does that sound fair to you?"

"Oh yes!" said Sandy.

Sandy worked very hard. He stacked the boxes very neatly, just the way the Store Man told him to. Show Picture 26G.





When Sandy was finished, the Store Man was smiling again. "Here is your gum, Sandy. You certainly earned it." Show Picture 26H.

Sandy didn't feel guilty anymore. Now he felt proud. Show your Proud Feeling Face. Sandy put a piece of gum into his mouth. It was the best piece of gum he had ever tasted!

Discuss the story with your students as appropriate to their level:

1. How did Sandy feel when he stole the gum? (mad or angry when he took the gum, and then later, guilty, sorry, upset)

2. How did other people (Mother, the Store Man) feel when they found out that Sandy had stolen the gum? (The story doesn't say, so the children will need to speculate, e.g., disappointed in him, angry, upset, etc.)

3. What did Sandy do so he wouldn't feel guilty anymore? (He took the gum back to the store and he told the Store Man that he had stolen the gum [he confessed].)

4. Why did Sandy feel proud after he stacked the boxes? (Because he worked hard and earned the gum in an honest way instead of stealing it.)

After you have finished discussing the story, tell your students about a time when you felt guilty, particularly in relationship to something that happened in the classroom or happened to you as a child. Then ask your students if they want to share examples about times when they have felt guilty about something. What did they do? Did it help them not feel guilty anymore? How did other people feel? Encourage discussion, and paraphrase, repeat, or clarify as necessary to improve understanding. Also empathize as appropriate and praise each child for his or her participation.

Afterwards, pass out the Guilty Feeling Faces and have the children color in the hair.

OPTIONAL MATERIAL FOR ADVANCED STUDENTS..... The following material is optional and can be included at your discretion, based on the needs and developmental level of your particular class.

* Feeling guilty is a very important signal because guilt can help us think about what is right and what is wrong. When we recognize that we are feeling guilty, we should stop and pay attention to it. Then we can ask ourselves what we are feeling guilty about. Once we know what we are feeling guilty about, we can ask ourselves if we really did something wrong or not.

If we did do something wrong, we can try to do something to correct what we did, like telling other people that we are sorry. We can also learn from our mistakes and we can remember to try not to do the same things again. That way, guilt can help us learn to control our behaviors. If people don't feel guilty when they do wrong things, they will have a very hard time learning from their mistakes and learning how to control their behaviors. If people don't feel guilty when they do wrong things, they will also probably get into trouble a lot.

* Guilty is sometimes a confusing feeling, though, because sometimes we feel guilty when we really didn't do anything wrong. For example, many people feel guilty when their pets or other people die, even though it was not their fault. They feel like they did something wrong. If they stop and think about it, then they can remember that they did not do anything wrong, so they shouldn't feel guilty about it. It isn't our fault when things die. We are not responsible. If we feel guilty when someone dies, the guilt signal, or feeling, is giving us wrong information.

If we feel guilty and we decide that we didn't do anything wrong, then we know that the guilt signal is giving us mistaken information. Then we can say, "That guilt signal was a false alarm," and we can tell ourselves that there is nothing to feel guilty about.

* Sometimes people feel guilty, but they don't act or look guilty. Instead, they act angry at other people. When people become angry at others instead of acting or looking guilty, even they don't often know that they are really feeling guilty inside! That makes it very hard for them and for other people to know that they really do feel guilty inside.

* Many children are confused about the difference between a guilty verdict associated with the judicial system and the internalized guilty feeling. This is an important and difficult distinction for children to make. You might want to clarify this for your students, if appropriate to their level:

Sometimes children feel confused about the difference between feeling guilty inside and being judged guilty, like in court. We use the same word, but they mean different things. I will explain the difference.

Let's pretend that someone has to go to court because the person didn't stop at a red light. The judge will ask the person to explain what happened. Then the judge will decide if the person broke the law or not. If the judge thinks that the person did break the law, the judge will say, "You are guilty of breaking the law. It was your fault."

That is the same kind of thing that we do inside of ourselves when

we feel guilty; we act like a judge to ourselves. If we decide that we did something wrong, and we feel sorry about doing it, then we feel guilty about it. We feel guilty because we know that we are responsible for having done something wrong, and we feel ashamed and sorry that we did it.

REMINDERS ..... * Make the Compliment List, send home the PATHS Kid Letter, and choose the new PATHS Kid for Today.

* At the end of the lesson, have the children show the Feeling Faces that reflect their current feeling states.

* Point out how the children are feeling and behaving throughout the day, especially when they are feeling guilty. Remind them to change their faces when appropriate. Remember to change yours as well.

* Whenever appropriate throughout the day, remind your students to use the steps on The Control Signals Poster and the Three Steps for Calming Down. Also, model these for the class (and talk through the process out loud) whenever you have a problem!

* If you taught the Readiness and Self-Control Unit, think about when you want to start the first step of fading-out the material reinforcers (i.e., to once a day). In any case, continue to verbally praise "Turtles" whenever the children do them correctly.

SANDY AND THE GUM

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One day, Sandy's mother took him to the grocery store. He asked his mother to buy him some gum, but she said, "No." Sandy felt very angry and frustrated. Show your Angry and Frustrated Feeling Faces.

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Mother was beginning to get mad. Show your Mad/Angry Feeling Face. "No! Now be quiet. I have our shopping to do."

Mother walked away, while Sandy stood looking at the gum. He really wanted that gum a lot, and he was feeling very angry. Show your Mad/ Angry Feeling Face again.

Sandy thought, "OK, if my mom won't buy it for me, then I'll just take it!" He reached over and put the gum in his pocket. Show Picture 26D.

Sandy knew that he shouldn't do that, he knew he wasn't supposed to, but he wanted that gum very much, so he did it anyway. His mother didn't see him do it. In fact, no one knew he had taken the gum except for Sandy.

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"Yes!" said Sandy.

"OK," said the Store Man. "I just happen to need some help right now. If you stack these boxes for me, I will pay you with this gum. Does that sound fair to you?"

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Sandy worked very hard. He stacked the boxes very neatly, just the way the Store Man told him to. Show Picture 26G.

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Sandy didn't feel guilty anymore. Now he felt proud. Show your Proud Feeling Face. Sandy put a piece of gum into his mouth. It was the best piece of gum he had ever tasted!

APPENDIX F

THE PATHS CURRICULUM

Identifying and Expressing Feelings

Purpose.

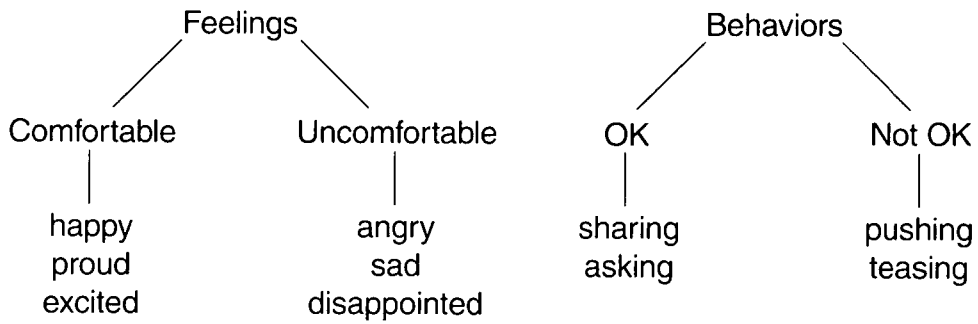
The ability to identify how we feel and how others feel and the capacity to express our feelings appropriately are very important for understanding ourselves, relating to others, controlling our behaviors, and solving our problems. Often children (and adults) either don't know how they feel or are confused about how to express their feelings in an adaptive way. This often makes relationships very difficult and can make problems worse. Thus, one of the major emphases of PATHS is to teach children how to recognize and talk about feelings. We want to give children alternative ways to express feelings other than to just ignore them or act them out.

Skills.

In our PATHS lessons, we will discuss many different feelings during the school year. We will begin with basic emotions such as happy, sad, angry, and so forth, and later introduce more complex emotional states such as embarrassed, shy, and proud. During these lessons, the children will be taught such things as different kinds of clues that help us recognize our own feelings as well as the feelings of others, how and why to consider another's point of view, how one's behaviors can affect other people, and how the behavior of others can affect oneself. These lessons will include group discussions, reading and writing assignments, role-playing skits, art activities, and stories.

Comfortable and Uncomfortable Feelings.

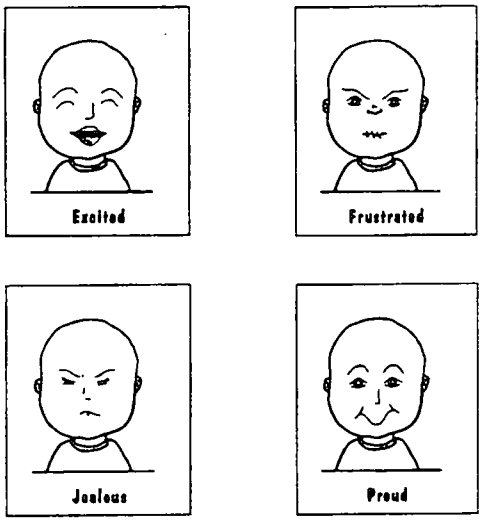
In PATHS, the children will learn that feelings are important signals that give us information. Throughout the lessons, we will emphasize that all feelings are natural and OK to have, but that behaviors are different from feelings. Behaviors can be "OK" or "Not OK." We will review this difference in a number of lessons by using diagrams such as the following:



We will talk about having "Comfortable Feelings" and "Uncomfortable Feelings." I will avoid using the words "good" and "bad feelings," because children (and adults) often confuse this with thinking that certain feelings are "bad" and that we shouldn't have them. Obviously, we know that this is not true. Both comfortable (e.g., happy, calm, excited) and uncomfortable feelings (e.g., sadness, anger, disappointment) provide us with valuable information; when we recognize our feelings, we can better decide what to do about them. Thus, PATHS teaches us that "All Feelings Are OK" but "What You Do (Behaviors) Can Be OK or Not OK."

Using Feeling Faces.

In order to help the children use their new feeling words throughout the day, they will be given a "feeling face" (made of paper) to represent each emotion. Uncomfortable feelings will be on blue paper and comfortable feelings will be on yellow paper. Certain feelings, such as surprised, will be made in yellow and blue. In order to personalize the faces, the children will color in the hair. The children will also have a private blank face for times when they do not want to show their feelings. Examples of different feeling faces are shown below:



Each child will keep his or her own set of feeling faces in his or her own feeling box in his or her desk. I will also have my own set of feeling faces, both the children and I will change our faces at different points during the school day. In this way, the children can begin to see how feelings and behaviors affect one another when they are really happening and can better understand that feelings and behaviors are different things. They will see, for example, that we can feel upset or frustrated, but still behave appropriately. The children will also see that talking about feelings (and showing their feeling faces) can sometimes be a good solution to a problem. The feeling faces will also help the children become more aware of their own thoughts and feelings, as well as those of others (even teachers!). Children usually really enjoy using these faces and after they begin to use them, they generally begin to quickly use more mature and correct words to express their thoughts and feelings.

Does Talking About Feelings Solve Problems?

Sometimes it does and sometimes it doesn't. However, even when understanding and discussing feelings doesn't solve the problem, it is still an important step in finding an appropriate solution to a problem. Talking about feelings helps children to get their feelings under control instead of acting impulsively. In addition, it often helps us to feel better when another person listens to our feelings with an understanding ear. When we feel better, then we can think more clearly about what to do next.

No single solution will always work for every problem. We want to teach children that they need to think of different solutions to solve problems. However, there are many situations that we all experience (failure, disappointment, grief, etc.) for which the best solution may be to talk with someone we feel close to about how we are feeling.

In addition, the ability to talk about feelings and problems is crucial groundwork for later childhood and the teen years when children face difficult dilemmas such as drug use, peer pressure, and sexual issues. By then, it is often too late to begin trying to help them feel comfortable with talking to parents or other adults about such issues. In short, talking may not solve a problem immediately, but it can encourage trusting relationships and good problem-solving skills.

What You Can Do at Home:

1. Each day after school, ask your child what feeling word(s) he or she learned that day.

2. Use the feeling words that your child has learned when discussing situations at home and explain what new feeling words mean if your child doesn't know them.

3. When your child is experiencing problems, ask him or her to tell you how he or she is feeling. If he or she can't tell you, provide some alternative labels to try to help him or her identify the feelings. For example, you might say, "Are you feeling frustrated? or maybe you're feeling disappointed and furious?"

4. Try to remember to tell your child how you are feeling, so that he or she can become more aware of what is going on inside of you. In this way, your child can learn to be more sensitive to your feelings and to the feelings of others. We often think that our children understand how we are feeling, but they are really confused. Of course, there will be times when you won't want to share your feelings, and these are excellent times to discuss the importance of privacy.

APPENDIX G

PATHS HOME ACTIVITY - LESSON 2(A)

_____
Name

This is a picture of how the people in my family looked when I gave them compliments:

On the back of this paper, draw a picture to show how you felt when you gave the people in your family these compliments.

Name _____ Date _____

PATHS HOME ACTIVITY - LESSON 2(B)

1. The first person I gave a compliment to was _____.

   The compliment was _____.

   Here's what happened: _____

   _____.

2. The second person I gave a compliment to was _____.

   The compliment was _____.

   Here's what happened: _____

   _____.

3. The third person I gave a compliment to was _____.

   The compliment was _____.

   Here's what happened: _____

   _____.

On the back of this paper, draw a picture or pictures to show how you felt when you gave these people their compliments.

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FOR FURTHER INFORMATION ON THE PROMOTING ALTERNATIVE THINKING STRATEGIES (PATHS) PROGRAM CONTACT:

Mark Greenberg, Ph.D., Principal Investigator
Director, Prevention Research Center
Penn State University
110 HDFS – Henderson Building South
University Park, PA 16802-6504
Phone: (814) 863-0112
Email: mxg47@psu.edu

For Information on the PATHS Curriculum Contact:

Customer Service
Developmental Research and Programs
130 Nickerson, Suite 107
Seattle, WA 98109
(800) 736-2630
Email: sales@drp.org
www.drp.org

Center for the Study and Prevention of Violence

University of Colorado at Boulder
Institute of Behavioral Science
Campus Box 442
Boulder, Colorado 80309-0442
(303) 492-8465