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## ABSTRACT

This document provides information on three adult problem-solving measures developed to assess the effects of participating in a problem-solving training program. Each measure is accompanied by a manual describing the purpose, administrative procedures, psychometric properties, and use in research studies. The first measure is the Parent Means-End Problem-Solving Instrument. It follows the means-end format used by Spivack and Shure. All stories were developed to be relevant for parents of young children. The second measure is the Wasik Problem-Solving Rating Scale. It is a 20-item self-rating scale designed so that it can be completed by individuals with less than a high school education as well as those with a high school or college education. A total score and three factor scores can be calculated. The measure has been found to be significantly correlated with depression. It has been used in a national multi-site study with parents. The third measure is the Client Problem-Solving Rating Scale. It was developed to be completed by a service provider who rates a client's problem-solving skill in eight areas: (1) approach to problems; (2) problem identification; (3) goal selection; (4) generation of alternatives; (5) consideration of consequences; (6) decision making; (7) implementation; and (8) evaluation. Each of the eight sections of the checklist includes a set of four items reflecting effective problem-solving.  
 (Author/BF)

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**Three Parent and Adult  
Problem-Solving Instruments**

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### Parent and Adult Problem-Solving Instruments

It is not uncommon to find more attention devoted to theories about changing behavior than to procedures and instruments for measuring behavior. The field of social problem-solving has been no exception. Yet, there are many situations which demand the ability to accurately assess problem-solving. In implementing problem-solving training programs or when addressing coping skills more generally, it is helpful to have an initial assessment of problem-solving skills, to be able to determine change during an intervention effort, and to assess outcomes.

No standardized, generally accepted method exists for obtaining an assessment of an individual's problem-solving skills. Most existing measures focus primarily upon self-report of one's problem-solving under specific or general circumstances. Such measures have a valuable role in the assessment of problem-solving skills for groups of individuals, and provide ways of evaluating the effects of intervention programs.

In this document we provide information on three adult problem-solving measures developed to assess the effects of participating in a problem-solving training program. Each measure is accompanied by a manual describing the purpose, administrative procedures, psychometric properties, and use in research studies.

The first measure is the Parent Means-End Problem-Solving Instrument. It follows the means-end format used by Spivack and Shure. All stories were developed to be relevant for parents of young children.

The second measure is the Wasik Problem-Solving Rating Scale. It is a 20-item self-rating scale designed so that it can be completed by individuals with less than a high school education as well as those with a high school or college education. A total score and three factor scores can be calculated. The measure has been found to be significantly correlated with depression. It has been used in a national multi-site study with parents.

The third measure is the Client Problem-Solving Rating Scale. It was developed to be completed by a service provider who rates a client's problem-solving skill in eight areas: (1) approach to problems; (2) problem identification; (3) goal selection; (4) generation of alternatives; (5) consideration of consequences; (6) decision making; (7) implementation; and (8) evaluation. Each of the eight sections of the checklist includes a set of four items reflecting effective problem-solving.

A fourth measure, a problem-solving plan sheet, is used during problem-solving training to help individuals enhance their problem-solving skills. It is included in a separate publication titled *Coping with Parenting through Effective Problem Solving* (Wasik, 1984).

**Manual**  
**Parent Means-End Problem-Solving Instrument**

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## Manual for the Parent Means-End Problem-Solving Instrument

Donna M. Bryant and Barbara H. Wasik

### I. Purpose of the Instrument

The Parent Means-End Problem-Solving Instrument (PMEPS) was developed to measure the problem-solving skills of parents of young children. The instrument measures means-end problem-solving thinking as described by Spivack and Levine (1963) and Shure and Spivack (1972, 1975, 1978) and is patterned after the Means-Ends Problem-Solving Procedure reported by Platt and Spivack (1975a, 1975b).

Shure and Spivack (1972) have defined means-end thinking as "an ability to carefully plan, step-by-step, means to reach a stated goal. Such planning includes insight and forethought to forestall or circumvent potential obstacles and, in addition, having at one's command alternative routes if such an obstacle is realistically or psychologically insurmountable."

The means-end technique is used to study how an individual goes about reaching a certain goal, rather than studying the actual goals that are selected. This technique is sometimes referred to as the open-middle technique in contrast to the open-end technique in which subjects can generate different goals.

To test for means-end thinking, a problem situation and a desired goal are presented to the subject, thus defining the beginning and end of a possible scenario. The person responding to the situation is asked to articulate the means to get to the specified end. Their means-end thinking can be operationalized as the number, type, and/or quality of responses given to the stories. To generate a mean or means, a respondent must think of alternative(s) that are compatible with the story, make some decision on the effectiveness of the different alternatives, decide which alternative(s) to report, and then report the alternative(s) to the examiner. These processes will most likely be covert, with the interviewee providing public information on some alternatives while not making public other alternatives she or he considered.

This manual provides information on the psychometric properties of the Parent Means-End Problem-Solving Instrument. Information is included on the pilot-testing, administering and scoring the PMEPS, and on its validity and reliability.

### II. Brief Review of Problem-Solving Assessment

Problem-solving skills are considered to be a major component of mental health (Jahoda, 1953) and social competence (D'Zurilla & Goldfried, 1971; Meichenbaum, 1985). Theorists generally operationalize problem-solving into five or six stages: problem definition, generation of alternative solutions, considering consequences, decision making, performing the solution, and evaluating the outcome (e.g., Dewey,

1910; D'Zurilla & Goldfried, 1971; Dollard & Miller, 1950; Gagne, 1959). Because means-end thinking is known to be an important component of problem-solving (Platt & Spivack, 1975a, b; Newell, 1983), we wanted to assess the means-end thinking of parents participating in our programs.

Of the various measures that have been developed to assess problem-solving, some focus on specific stages of problem-solving, some use direct observation, responses to hypothetical tasks, or interview format, and some are for use with specific populations (i.e., married couples, professionals or parents). However, none of the measures we reviewed seemed particularly suitable for parents of very young children, and our research at that time involved infants, toddlers, and their parents. The observational measures of problem-solving required a child old enough to participate, and the content of the hypothetical tasks was more appropriate for parents of older, preschool-age children. This led us to develop the Parent Means-End Problem-Solving Instrument. Following the Butler and Meichenbaum (1981) recommendation that stories in the means-end format should have content validity for the population being assessed, we developed stories appropriate for parents of infants and toddlers. The development process is described in the next section.

### III. Development and Pilot Testing of the PMEPS

The PMEPS includes 10 stories concerning typical child-rearing situations. A beginning and an ending are described for each of the 10 problem situations, and the respondent is asked to provide a middle part of the story. The respondent's answers are coded for number and content of solutions. The types of problem situations that were created are based on results from a nationwide survey of information needs of 1500 parents with young children (Sparling, Lowman, Lewis, & Bartel, 1979). Part of the survey requested parents to rate their important concerns, which, for a majority of parents, fell into four areas: child care, developmental issues, interpersonal issues, and child management. Stories for the PMEPS were written about these concerns. Some content for the specific stories was also drawn from the curriculum used by teachers and home visitors in Project CARE, our longitudinal study of early intervention for high-risk children (Ramey, Bryant, Sparling, & Wasik, 1985; Sparling & Lewis, 1979; Wasik, Ramey, Sparling, & Bryant, 1990).

Initially, 20 stories or vignettes were written and pre-tested with our friends and colleagues. The 10 stories selected for inclusion in the pilot-testing were ones that seemed relatively clear of ambiguities in interpretation. The 10 stories are contained in the Appendix. Using notices in the waiting rooms of a local pediatrician and a local health clinic, we recruited 20 mothers to participate in pilot-testing of this and one other measure. For their help, they were paid \$5.00.

During pilot testing, all responses were audiotaped and recorded in writing by the interviewer at the time of the interview to determine the better recording procedure. From a comparison of the data collected using each method, we determined that the

written responses (re-recorded rapidly as the mother presented the response) provided as much information as the audiotape transcripts. This method was selected for use because it was more efficient than transcription of audiotapes. Periodic use of audiotaped sessions can provide data (audiotape transcriptions of the responses) to evaluate reliability with written responses.

#### IV. Materials

The PMEPS consists of a set of verbal instructions, ten stories individually typed on 3 x 5 index cards, an examiner's copy of all stories, and a set of index cards listing possible solutions for each story. The examiner uses a pad of paper to record the subject's responses.

#### V. Administration

Instructions. An examiner reads the following instructions to each interviewee:

"In this procedure we are interested in how people handle problems with children. You are to make up some stories. For each story you will be given the beginning of the story and how the story ends. Your job is to make up a story that connects the beginning that is given to you with the ending given you. In other words, you will make up the middle of the story. Different people make up different stories. We would like you to make up a story that connects the beginning to the end. Read along on the card while I read the story aloud."

The examiner also gives the parent an opportunity to ask questions about the procedure and attempts to make sure that the parent understands the instructions.

The examiner provides the parent with a typed copy of each story on an index card. As they progress through each story, the examiner reads the story to the parent. The examiner records the subject's responses verbatim, or as close to verbatim as possible. Examiners can develop a translatable "shorthand" for writing responses rapidly. The responses of the interviewee are not to be condensed, so that scorers can read the full response to each story in order to score it accurately. The examiner does not prompt solutions by the interviewee. The examiner can reword the story for the interviewee if it is clear that the parent does not understand the situation being described.

If, after the first story, it is obvious that the interviewee does not understand the instructions, the instructions can be repeated or explained in a different way so that the parent understands what is expected of her or him. It is important to give identical instructions to all parents, but in a case in which the parent clearly does not understand what to do, rephrasing the instructions might help the parent grasp the procedure.

Alternate administration procedures. When the PMEPS was administered to Project CARE participants, we followed the collection of the responses to the 10 stories with 2 additional steps, a probe and a best-response section. Some of the parents had limited verbal skills and we wanted to optimize their opportunities to respond to the stories. Neither of these procedures has provided helpful additional information, but we present them here to state our rationale for ruling out these alternative question modes.

After writing responses to all ten stories, the probe instructions were given to the parent. Each story was summarized, one at a time, along with the interviewee's initial answer. The interviewee was asked after each summary, "Are there other ways that (Mary) could have handled that situation?" If any additional responses were given, they were recorded as well. Additional alternatives were given to the probe question 10% of the time. However, the number of these responses was very highly correlated with the number of initial responses, and they added little to our understanding of the pre-probe or initial responses.

To determine the best response, the examiner returned to each story a third time, after the probe. For each story she showed the parent an index card with various alternative solutions written on it, and said, "These are ways that other people have suggested for handling these situations. Which of these ways do you think would work best? Which would be most effective?" The examiner recorded the answer given to each story. We have decided not to use these data because the "best" responses did not differ substantially from the initial responses.

An additional reason for not continuing with either of these alternate response modes is that presenting the stories for a second or third time seemed to be perceived by parents as redundant or as an unspoken challenge to the validity of their first response(s). Since the initial responses provided adequate information, we discontinued these procedures after the first sample.

Time. The usual time required to administer the instrument is about 20-30 minutes. For a parent who generates few solutions, the time can be as short as 15 minutes. For subjects who generate more than one alternative per story and who elaborate on the alternatives, the administration can take as long as 40 minutes.

## VI. Scoring Procedures

Before coding the response(s) to each story, the scorer should read through the entire response to get an overall idea of the parent's meaning and to evaluate the consistency of the response. Sometimes a seemingly logical response is not an appropriate one, given the situation described in the original story and the ending called for.

After reading the entire response, the scorer then codes it for (1) numbers of relevant and irrelevant alternatives, (2) elaborations or variations of previously-mentioned

alternatives, and (3) content or type of each relevant alternative generated by the subject. We often use the word "alternative" instead of "means" because we find it to be less confusing when summarizing data (i.e., "mean number of alternatives" instead of "mean number of means").

Relevant alternatives. Each alternative given by the subject, which allows the character in the story to reach the end specified, is scored. If steps are given within a response that in themselves constitute distinct alternatives, each step is scored as a separate alternative. The categories are included in Appendix A. It is possible for the respondent to give none, one, or more than one relevant alternative to each story, and each one is scored. This definition is consistent with Platt and Spivack's scoring of a relevant means (1975a, p.21).

In addition to tallying the number of alternatives, each one is also scored in one of several categories empirically developed for each story. The number of distinct alternatives that are given differs from story to story. Story 5 seems to generate a range of alternatives whereas story 2 is usually answered with one or two typical responses. For each administration, any one parent may give a unique and relevant alternative. Consequently, although there are a number of general categories for responses (which we tried to keep small in number), there is also a category labeled "other" for responses that do not fit within the general headings.

The codes 0-6 are common to each story, although the specific content differs between stories. These codes are for solutions that can be common to many problem situations, such as consulting a third party or rewarding a certain behavior. In a given story the third party consulted might be a different person, yet the basic action - consulting - is the same. This coding convention allows researchers to sum across all ten stories for certain types of responses, such as the total number of punitive responses mentioned by the subject. We have found this category coding to be most useful in a descriptive or clinical way, rather than in a statistical way.

Irrelevant responses. An irrelevant response is scored when the response given is not an effective solution within the context of the story, when a subject gives no response to a story, and when the response is so unclear that the coder cannot determine whether it is relevant. Responses that are mere rewordings of the story or are value statements about the story are also coded as irrelevant responses. This definition includes Platt and Spivack's Irrelevant Means category and their No Means category (1975a).

Enumeration of alternatives. An enumeration is scored if the parent rewords a solution previously given to the same story, or if the parent gives more details about a specific alternative without changing the content. For example, in story 5, "She could give the baby a bottle or she could give him a cracker or she could buy a banana there in the store for him." Each of these three solutions is a component of the alternative, "giving food." Because each phrase is a specific way of doing that, the first one is scored

as a specific relevant alternative and the other two are scored as enumerations. This definition is consistent with Platt and Spivack's definition of enumerations (1975a).

Revisions. A revision is scored if the parent changes the beginning or ending of the presented story in some way and provides a means for a solution to the revised story. A revision would have been scored as an irrelevant response by Platt and Spivack's scoring method, and was scored as such in our first study of low and middle income parents. We distinguished it as a separate category with two later samples to determine if it was a response category that provided additional useful information.

Table 1 presents the mean number of responses of the various types from the three different samples that we have studied. Project CARE respondents were mothers of 20-month-olds who were participating in an early intervention project. Some were low-income and others were middle-income (Wasik, Bryant, & Fishbein, 1981). The Frank Porter Graham Daycare sample was a heterogeneous group of mothers of children attending the FPG Center in 1985, studied for the purpose of obtaining test-retest reliability data. In Table 1 the results from their first assessment are presented. The third group, labeled the community sample, consisted of 50 mothers of 2-1/2- to 3-1/2-year-old children, recruited from a random sample of infants born in 1983 at NC Memorial Hospital on the campus of the University of North Carolina at Chapel Hill. Complete results from these second two samples are presented in a paper by Wasik, Bryant, Kent, Powell, Vatz, and Ecklund (1988).

## VII. Reliability

Inter-rater Reliability. Two coders should score at least 15-20% of the sample to provide reliability estimates for scoring. It is recommended that scorers practice administering and scoring interviews that are not to be used in any research efforts. Then observer agreements can be obtained on the research protocols. Each scorer should score the entire protocol and then compare answers. There are several ways of determining inter-rater reliability. We used the following conventional calculation:

$$\frac{\# \text{ agreements}}{\# \text{ agreements} + \# \text{ disagreements}} \times 100$$

An agreement is scored if both scorers record the same alternatives to a story. For example, if each recorded a 1 and a 7, they have agreed twice. If, in addition, for the same response scorer A coded an 8 and scorer B coded a 9, they each recognized an additional response, but disagreed on its category, thus disagreeing once. On that particular story, their reliability is 67% or  $2/2+1 \times 100$ . Reliabilities can be computed for each subject across all ten stories (e.g., total number of relevant alternatives), for each story across all parents, or for all stories and parents. Our reliability on total relevant alternatives with the Project CARE sample was 88% with a range of 65-100% across parents. Our specific category reliability was 89.7%. In the community sample of

mothers of 2- and 3-year-olds, our reliability on total number of relevant alternatives was 93% (range, 80-100%); number of alternatives per story was 88% (range, 75-94%); and reliability on specific content codes was 87% (range, 71-100%).

Test-retest reliability. The PMEPS was administered twice, 4 weeks apart, to a sample of 23 mothers of young children attending the FPG Child Development Center. The number of relevant alternatives from one occasion to the next correlated positively and relatively high ( $r = .65, p < .001$ ). The number of irrelevant responses and elaborations from the first to the second occasion were not significantly correlated. This is not surprising, since irrelevant responses and elaborations are infrequent occurrences. The number of revisions showed a moderate, significant correlation across time ( $r = .45, p < .01$ )

### VIII. Validity

Initial steps to ensure the validity of the PMEPS were taken by developing stories that were relevant to parents of young children, the population for whom the measure was targeted. As previously described, responses from a nationwide survey of the information needs of 1500 parents with young children were used to guide the development of the 10 stories. We believe that this strategy enhanced the conceptual adequacy of the measure.

Three studies have addressed the issue of criterion validity -- does the measure discriminate between different types of parents? The initial study using PMEPS was conducted with Project CARE mothers (Wasik, Bryant, & Fishbein, 1981). Middle-income mothers gave significantly more relevant alternatives and significantly fewer irrelevant responses than did low-income mothers. These results are very similar to sample differences reported by Platt and Spivack (1975a) on their MEPS.

A study by Azar, Robinson, Hekinian, and Twentyman (1984) showed that abusive or neglectful parents gave significantly fewer relevant alternatives on the PMEPS than a matched group of non-neglectful parents. Wahler and Dumas (1983) showed an increase in the number of relevant responses on the PMEPS as a result of a short-term intervention program to help troubled mothers expand their response definition of child deviance. As a result of the intervention, mothers seemed to be more objective in their child-referenced problem-solving strategies. These three studies suggest that, in addition to content validity, the PMEPS has good discriminative validity.

### IX. Shortened Version of the PMEPS

A shortened version of the PMEPS measure has been studied. A 5-story measure was developed by selecting stories that, in the Project CARE sample, showed a high correlation with the total number of alternatives and that included at least one story from each of the four content areas identified above. The 5-story version utilizes stories 2, 5, 8, 9, and 10. Then, in the FPG and community samples, the mothers' 5-story scores were compared with their full 10-story scores. Very high correlations were obtained between

the shortened version and the original version (see Table 2). For both samples, relevant responses correlated very highly between subtest and total test. All other correlations between the shortened version and the total version were also high. Irrelevant responses for the community sample had the lowest correlation,  $r = .63$ . Overall, these results suggest that, if time were at a premium, the shortened version could be substituted and still provide a good measure of means-end thinking.

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## Appendix A

### Parent Means-End Problem Solving Instrument

#### Instructions:

In this procedure we are interested in how people handle problems with children. You are to make up some stories. For each story you will be given the beginning of the story and how the story ends. Your job is to make up a story that connects the beginning that is given to you with the ending given you. In other words, you will make up the middle of the story. Different people make up different stories. We would like you to make up a story that connects the beginning to the end. Read along on the card while I read the story aloud.

#### Part I

1. Every time Paula sees a particular friend, who has 2 older children, her friend offers unwanted advice about how Paula should raise her baby. Paula is angry at her friend. The story ends with Paula no longer angry at her friend because she is no longer advising Paula without being asked. Begin the story with Paula being angry with her friend.
2. Mary has been feeling "cooped up" and lonely since her baby was born. There is a movie downtown that she would like to see. The story ends with Mary going to the movie with a friend and the baby being cared for by someone else. Begin the story with Mary wanting to go to the movie.
3. Gloria's baby has been fussy all day and seems to be running a fever. This is the first time her baby has seemed to be sick and she is very worried. The story ends with the baby asleep, apparently feeling fine. Begin the story with Gloria thinking that her baby may be sick.
4. The baby's father doesn't think that Barbara is being firm enough with the baby. Barbara does not like the idea of punishing her baby but the father thinks the child is being spoiled. The story begins with Barbara and the father having an argument about whether to punish the baby. It ends with an agreement reached between the parents about this issue.
5. Pam is at the store with her baby when the baby gets cranky and starts to throw a temper tantrum. This makes Pam feel embarrassed and irritated. The story ends with the baby being quiet and content. Begin the story with Pam feeling embarrassed and irritated.

6. Sara's older boy, a 2-year old, was picking on the younger one. He took the baby's toys away, pushed him over, and made him cry. The story ends with both boys calmed down and playing nicely together. Start with Sara seeing the older one pick on the baby.
7. Martha is going back to work soon after her baby is born. Begin the story with Martha worried about what arrangements to make for her baby. End it with her finding a good place for him during the day.
8. Diane feels that her baby is ready to begin feeding himself. Up until now, she has fed the baby. The story ends with the baby feeding himself. Begin the story with Diane wondering what she can do to encourage her baby to be more independent in feeding.
9. Betty would like to see her toddler playing more with other children. The story ends with Betty's child playing more with other children. Begin the story with Betty wondering what she can do to encourage her child to play more with other children.
10. Jean's baby has been crawling for some time and appears to be ready to begin walking. The story ends with the baby learning how to walk. Begin the story with Jean trying to think of ways to encourage her baby to walk.

Appendix B  
Parent Means-End Problem Solving Instrument  
Category Codes for Alternatives

Key to common codes:

0	Explain, talk	I = irrelevant response
1	Consult 3rd party	E = enumeration
2	Compromise, cooperate	R = revision
3	Reward, encourage	
4	Punish	
5	Ignore, avoid	
6	Introspection leading to action	

Story 1: Paula

0. Talk to friend/tell off friend (explain, talk)
1. Consult third party (not an alternative if mentioned alone)
5. Avoid friend
6. Introspection leading toward action
7. Do same thing to friend
8. Act more confident
9. Stop taking child around friend
10. Other

Story 2: Mary

1. Consult third party
6. Introspection leading toward action
7. Make explicit arrangements for baby
8. Make arrangements with friend to go to movies
9. Other

Story 3: Gloria

1. Call professional (doctor, nurse)
6. Introspection leading toward action
7. Verify problem (take temperature, observe)
8. Call non-professional (neighbor, relative)
9. Visit professional
10. Give medication/nap/fluids

11. Consult relevant book
12. Other

Story 4: Barbara

0. Talk it over (not alone)
1. Consult third party
2. Compromise
6. Introspection leading to action
7. Make list of situations (not an alternative if mentioned alone)
8. Follow father's wishes or Barbara's wishes
9. Other

Story 5: Pam

0. Talk to child or threaten with punishment
4. Punish child
5. Ignore baby
6. Introspection leading to action
7. Bargain with baby
8. Leave store
9. Give attention
10. Give playing or food/divert attention
11. Caretake (check diaper, give bottle)
12. Pam should calm herself
13. Other

Story 6: Sara

0. Explain to older child
3. Offer reward
4. Punish older child (physically or by isolating)
6. Introspection leading to action
7. Verbally scold/threaten older child
8. Console younger child
9. Give toy to older child/let older child get own toy
10. Separate children (not an alternative if mentioned alone)
11. Give a "sharing toy"/enlist older child as "helper" with baby
12. Other: play with both children  
let older one know he is loved  
let play by themselves

Story 7: Martha

1. Ask professional for advice
6. Introspection leading to action
7. Call daycare (To code a means, must have something more than "She finds a daycare to keep the baby.")
8. Visit daycare
9. Call neighbor/baby-sitter
10. Ask other for advice
11. Visit baby sitter
12. Other: make list of criteria

Story 8: Diane

3. Encouragement/reinforcement
6. Introspection leading to action
7. Provide finger foods
8. Provide foods to be eaten with a spoon or give fluids in a cup
9. Perform exercises to increase coordination
10. Model appropriate behavior
11. Provide motivation (food baby likes, special utensils, etc.)
12. Other

Story 9: Betty

0. Explain about cooperative play and sharing
3. Reward appropriate behavior/encourage
6. Introspection leading to action
7. Find other children
8. Model appropriate behavior (adult or other children as models)
9. Provide toys that encourage cooperation, are of high interest, etc.
10. Other

Story 10: Jean

3. Reward
6. Introspection leading to action
7. Build strength in legs/walk baby/encourage to stand or walk exercises holding onto or pulling up on objects
8. Put desirable object (including oneself) out of reach to encourage walking
9. Buy walker/use walker
10. Other: use toddler as model

## Appendix C

I.D. \_\_\_\_\_

## PARENT MEANS-END PROBLEM SOLVING INSTRUMENT CODING SHEET

Story #	Relevant Alternatives	Irrelevant Responses	Enumerations	Revisions
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
Totals	_____	_____	_____	_____

Table 1  
 Mean Number of Responses to PMEPS for  
 Three Different Samples

	<u>Project Care</u>		<u>FPG Daycare Center</u>	<u>Community Sample</u>
	<u>Low-income</u>	<u>Middle-income</u>		
	(n=47)	(n=26)	(n=23)	(n=50)
Relevant Alternatives	11.85	16.80	18.09	16.52
Irrelevant Responses	1.22	.50	.21	.24
Enumerations	1.19	2.00	2.70	2.92
Revisions	NR	NR	.70	1.32

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Note: Revisions were not scored separately with Project CARE sample.

Table 2  
 Correlations Between the Shortened-Version PMEPS and the  
 Full-Version PMEPS for Each Sample

	FPG Daycare <u>Center</u>	<u>Community</u>
	(n=23)	(n=50)
Relevant Alternatives	.95***	.83***
Irrelevant Responses	.94***	.63***
Enumerations	.94***	.88***
Revisions	.77***	.91***

\*\*\*p<.001

**Manual**  
**Wasik Problem-Solving Rating Scale**

**Barbara H. Wasik**

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### Wasik Problem-Solving Rating Scale

**Purpose:** The Wasik Problem-Solving Rating Scale (PSRS) is designed to provide a measure of self-perception of one's general problem-solving style. The use of rating scales for such purposes has received strong support in the literature and is considered by Lazarus (1966) to be the preferred assessment procedure for measuring coping skills. Lazarus developed one of the first instruments to measure coping skills (Lazarus, 1966; Lazarus & Folkman, 1984). Later, Billings and Moos (1981) developed another coping scale, incorporating items from Lazarus' work. Heppner and Paterson (1982) developed a self-report measure of problem-solving behavior and attitudes for use with college students, the Problem Solving Inventory (PSI). Although this measure has been used extensively in the field, the reading vocabulary and comprehension level do not make it suitable for a general adult population. The Problem-Solving Rating Scale described in this manual was designed for a general adult population, with items appropriate for those with a low reading level as well as for those with advanced educational degrees.

**Description:** The Wasik PSRS is a 20-item 5-point Likert scale with items based on a seven-step model of social problem-solving including problem identification, goal selection, generation of alternatives, considering consequences, decision making, implementation, and evaluation (Wasik, 1984; Wasik, Bryant, Sparling, & Ramey, in press). Items also assess one's orientation to problem-solving.

**Administration:** The scale takes approximately 5 to 7 minutes to complete. The scale is given to a person with the following specific instructions:

This measure provides information on how you think about everyday things in your life. Read each sentence carefully and think about how it applies to you. If the sentence describes a way you **Almost Never** act or feel, circle the 1; if you **Sometimes** act or feel this way, circle the 2; if you act or feel this way **About Half the Time**, circle the 3; if you act or feel this way **Often**, circle the 4; if you act or feel this way **Almost Always**, circle the 5.

Read the sample below and circle the number that best fits how you act or feel.

Example: I cook the food for my own meals.

When the respondent has circled a number, review the example to assure she or he understood the directions. Then say, "Now read each sentence and circle the number for the words that best describe how you feel or act for what is described. You should complete all 20 sentences."

**Scoring:** Items are scored from 1 to 5 on each item for a total score of 20 to 100. Items are written so that high scores on 11 items indicate effective problem-solving and low scores on the remaining 9 indicate effective problem-solving. The second set of items need to be reversed for scoring: 2, 3, 5, 8, 9, 10, 15, 17, and 20.

**Reliability:** Test-retest reliability was obtained over a 4 to 6 week time period with a sample comprised of 23 women, ages 25 to 46, with a mean age of 32.8 years. The educational level of the women in this sample ranged from eleventh grade to professional degree with an average of 3.4 years of college or technical school. The Pearson Product Moment correlation was  $r=.94$ ,  $p < .01$ . Cronbach's alpha (a measure of internal consistency) calculated on each test administration was .78 and .82.

**Validity:** The Wasik PSRS has been correlated with Heppner's Problem Solving Instrument, comparing the total PSRS score to each factor of the PSI: Factor 1--Confidence, Factor 2--Approach-Avoidance, and Factor 3--Personal Control.

Comparisons with the Wasik PSRS and the Heppner PSI were made with two populations, the sample described above and a second sample comprised of 50 women ranging in age from 19 to 43 with

a mean of 30 years. The second sample's educational level ranged from eighth grade to professional degree with a mean of two years of college or technical school. Results are presented in Table 1. (On Heppner's scale, a low score indicate higher skills, thus accounting for the negative correlations between the scales.) These data suggest that the two instruments are measuring a similar personal perception of problem-solving.

Table 1  
Pearson Product Moment Correlations between Wasik's Problem-Solving Rating Scale (PSRS) and Heppner's Problem Solving Inventory (PSI)

	Heppner PSI		
	<u>Factor 1</u> Confidence	<u>Factor 2</u> Approach-Avoidance	<u>Factor 3</u> Personal Control
Wasik PSRS Sample 1	-.71***	-.64***	-.60**
Wasik PSRS Sample 2	-.74***	-.48***	-.49**

\*  $p < .05$   
\*\*  $p < .01$   
\*\*\*  $p < .001$

## Wasik Problem-Solving Rating Scale

Directions: This measure provides information on how you think about everyday things in your life. Read each sentence carefully and think about how it applies to you. If the sentence describes a way you **Almost Never** act or feel, circle the 1; if you **Sometimes** act or feel this way, circle the 2; if you act or feel this way **About Half the Time**, circle the 3; if you act or feel this way **Often**, circle the 4; if you act or feel this way **Almost Always**, circle the 5.

Read the sample below and circle the number that best fits how you act or feel. Then complete the 20 sentences.

	Almost Never	Sometimes	About Half the Time	Often	Almost Always
Sample: I cook the food for my own meals.	1	2	3	4	5
1. I figure out which problems in my life are the most important to work on.	1	2	3	4	5
2. I have a hard time talking to others about problems or concerns in my life.	1	2	3	4	5
3. I am surprised at how my plans turn out.	1	2	3	4	5
4. It's easy for me to carry out my plans.	1	2	3	4	5
5. Anger or depression makes it hard for me to deal with my own problems.	1	2	3	4	5
6. I can make other people clearly understand what I want.	1	2	3	4	5
7. I make my own decisions.	1	2	3	4	5
8. When my first plans do not work, I want to stop.	1	2	3	4	5
9. I have a hard time making decisions.	1	2	3	4	5
10. I do the first thing I think about when I have a problem.	1	2	3	4	5
11. If my plans don't work, I try to figure out why.	1	2	3	4	5
12. I don't like to ask other people for ideas to help with my problems.	1	2	3	4	5
13. I think of more than one way to solve a problem before I do anything.	1	2	3	4	5
14. Before I do something, I think about what will happen if I do it.	1	2	3	4	5
15. Things like not having enough time or money keep me from doing what I need to do.	1	2	3	4	5
16. I believe that the problems I have with my family are no harder than those other people have.	1	2	3	4	5
17. Even after I've decided what to do, I put off doing it.	1	2	3	4	5
18. I really feel I can deal with my own problems.	1	2	3	4	5
19. I have a clear idea of what I want in my life.	1	2	3	4	5
20. I have a hard time speaking up for what I want.	1	2	3	4	5

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**Manual**  
**Client Problem-Solving Rating Scale**

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## Client Problem-Solving Rating Scale

Purpose: This problem-solving rating instrument was first developed to obtain perceptions of parents' problem-solving skills by a professional who has gained knowledge over a period of time on how the parent copes with day-by-day problems. It can be used to evaluate the skills of other clients.

Description: This rating scale assesses parental problem-solving skills in eight areas, seven of which correspond to processes in the Wasik problem-solving model: problem identification, goal selection, generation of alternatives, considering consequences, decision making, implementation, and evaluation (Wasik, 1984; Wasik, Bryant, & Lyons, 1990). The eighth area is one's approach to problems.

Each of the eight areas is assessed by four items reflecting effective problem-solving. All items are rated on a 5-point Likert-type scale with 1 being "Always" and 5 being "Probably Not". Items are written so that a low score indicates effective problem solving skills.

In Section II, the instrument globally assesses verbal skills, level of depression, and level of personal stress, thus providing information useful for interpreting the ratings on the problem solving skills.

Administration: The rater should have obtained knowledge of a parent's general coping skills and problem-solving skills on at least three occasions before completing this instrument. The rater should use information from several examples in the parent's life, not just one, in making these ratings. The scale typically takes between 5 and 10 minutes to complete.

Scoring: Scores are calculated by summing the ratings on the first 32 items (those assessing the eight problem solving processes). Scores can range from 32 to 160, with lower scores indicating more effective problem solving skills.

Research Results: Current research is being conducted on comparing ratings of home visitors of parental problem-solving skills with parent self-rating of problem solving-skills.

### References:

- Wasik, B. H. (1984). Coping with parenting through effective problem solving: A handbook for professionals. Frank Porter Graham Child Development Center, University of North Carolina, Chapel Hill, NC.
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## Client Problem-Solving Rating Scale

Barbara H. Wasik

**Directions:** Circle the number that best fits the client whose skills you are rating. Use information obtained from at least three separate interactions with the client.

### Section I

	1 Always	2 Most of the Time	3 Half the Time	4 Sometimes	5 Probably Not
<b>I. Approach to Problems</b>					
1. Believes that problematic situations are a normal part of parenting	1	2	3	4	5
2. Quickly recognizes problem situations	1	2	3	4	5
3. Takes appropriate responsibility for problem resolution	1	2	3	4	5
4. Responds after deliberating	1	2	3	4	5
<b>II. Problem Identification</b>					
1. Readily focuses on problem	1	2	3	4	5
2. Brings in relevant variables	1	2	3	4	5
3. Sets priorities	1	2	3	4	5
4. Can clearly describe the problem	1	2	3	4	5
<b>III. Goals Selection</b>					
1. Obtains information on goals from others	1	2	3	4	5
2. Can identify appropriate goals	1	2	3	4	5
3. Can prioritize goals	1	2	3	4	5
4. Can see the impact of goals on other people	1	2	3	4	5

	Always	Most of the Time	Half the Time	Sometimes	Probably Not
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#### IV. Generation of Alternatives

1. Can generate 2 or more alternatives	1	2	3	4	5
2. Alternatives are appropriate to the problem	1	2	3	4	5
3. Alternatives are realistic	1	2	3	4	5
4. Alternatives show a breadth of knowledge	1	2	3	4	5

#### V. Consideration of Consequences

1. Thinks through consequences in general	1	2	3	4	5
2. Recognizes positive consequences	1	2	3	4	5
3. Recognizes negative consequences	1	2	3	4	5
4. Considers short term and long term consequences	1	2	3	4	5

#### VI. Decision Making

1. Makes decision after considering consequences	1	2	3	4	5
2. Makes timely decisions	1	2	3	4	5
3. Takes responsibility for decision making	1	2	3	4	5
4. Makes child-sensitive decisions	1	2	3	4	5

	Always	Most of the Time	Half the Time	Sometimes	Probably Not
<b>VII. Implementation</b>					33
1. Recognizes own or obtains skills to implement decisions	1	2	3	4	5
2. Recognizes own or obtains resources to implement decisions	1	2	3	4	5
3. Carries through in a timely manner	1	2	3	4	5
4. Addresses any consequences appropriately	1	2	3	4	5

### VIII. Evaluation

1. Consistently follows up to determine effectiveness	1	2	3	4	5
2. If goal was not met, reconsiders original problem to see if problem was correctly identified	1	2	3	4	5
3. Accepts responsibility for contribution to success	1	2	3	4	5
4. Accepts responsibility for contribution to failure	1	2	3	4	5

### Section II

#### 1. Verbal Skills

Highly articulate & Coherent	Talks easily & often	A little reserved	Sometimes nonverbal	Mainly nonverbal
1	2	3	4	5

#### 2. Level of Depression

Happy & Content	Not Depressed	Mildly Depressed	Moderately Depressed	Severely Depressed
1	2	3	4	5

#### 3. Level of Personal Stress

Less than for comparable parents	Below average	Average	Slightly more than average	Much more than average
1	2	3	4	5