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A Parent Training Program for Teaching Preschool Children Independent Self-Care Skills

Dalene Rooks DeGraaf
Western Michigan University

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A PARENT TRAINING PROGRAM FOR TEACHING PRESCHOOL CHILDREN INDEPENDENT SELF-CARE SKILLS

by

Dalene Rooks DeGraaf

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A PARENT TRAINING PROGRAM FOR TEACHING PRESCHOOL CHILDREN INDEPENDENT SELF-CARE SKILLS

Dalene Rooks DeGraaf, Ph.D.

Western Michigan University, 1991

Teaching children to be independent is a challenge for parents. Initially, parents directly prompt and consequate their children's behavior. Later, the parents fade prompts and delay consequences expecting their children to use self-management skills and environmental cues to complete tasks. The purpose of this study was to observe some of the methods which parents use to teach their 4-year-old children independent self-care skills and test the effects of a parent training program. The program was designed to transfer stimulus control from the parent's physical or verbal prompts to textual and picture prompts on a poster listing the morning self-care skills and to positive self-instructions for using the poster and completing self-care skills. A within subject multiple baseline across subjects design was used to compare the effects of a concurrent, poster with self-instruction, training package versus a consecutive, poster followed by self-instruction, training package. Twice a week, seven parents reported how much prompting their child received in initiating and completing each
self-care skill for getting ready for the day and getting ready for bed. The children in the concurrent program made somewhat larger increases in the number of morning self-care skills initiated alone and skills initiated and completed alone and better maintained these increases over the course of the program. The amount of increased independence in morning self-care skills during the program varied inversely with the number of problem behaviors emitted and the number of family events or stressors. A poster with picture prompts and positive self-instructions appear to be useful methods for helping parents teach their preschool children independent self-care skills.
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A parent training program for teaching preschool children independent self-care skills

DeGraaf, Dalene Rooks, Ph.D.

Western Michigan University, 1991
I would like to thank God and several committed Christians who walked with me during the difficult time between the inception and the completion of this project.

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................... ii
LIST OF TABLES ............................................... vi
LIST OF FIGURES ............................................... vii

CHAPTER

I. INTRODUCTION ........................................... 1

II. REVIEW OF SELECTED LITERATURE ......................... 4
    Transfer of Stimulus Control ......................... 4
    Self-Instructions and Task Completion ............... 6

III. METHOD .................................................. 13
    Subjects ................................................. 13
    Setting .................................................. 14
    Materials ............................................... 14
    Measures ............................................... 15
        Child Self-Care Skills Checklist .................. 16
        Problem Behaviors .................................. 17
        Family Events List ................................. 18
        Stanford Preschool Internal-External Scale ....... 19
    Procedure .............................................. 20
        General Experimental Design ...................... 20
        Detailed Experimental Procedure ................ 21
        Assessment Phase .................................. 21
### Table of Contents—Continued

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention Phase</td>
<td>22</td>
</tr>
<tr>
<td>Follow-Up</td>
<td>24</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>25</td>
</tr>
<tr>
<td>Consecutive Versus Concurrent Program Data</td>
<td>25</td>
</tr>
<tr>
<td>Morning Self-Care Skills</td>
<td>25</td>
</tr>
<tr>
<td>Evening Self-Care Skills</td>
<td>30</td>
</tr>
<tr>
<td>Covariation of Problem Behaviors</td>
<td>31</td>
</tr>
<tr>
<td>Covariation of Family Events</td>
<td>32</td>
</tr>
<tr>
<td>Changes in the Locus of Control</td>
<td>32</td>
</tr>
<tr>
<td>Individual Subject Data</td>
<td>34</td>
</tr>
<tr>
<td>Subject 1</td>
<td>34</td>
</tr>
<tr>
<td>Subject 2</td>
<td>37</td>
</tr>
<tr>
<td>Subject 3</td>
<td>38</td>
</tr>
<tr>
<td>Subject 4</td>
<td>39</td>
</tr>
<tr>
<td>Subject 5</td>
<td>40</td>
</tr>
<tr>
<td>Subject 6</td>
<td>41</td>
</tr>
<tr>
<td>Subject 7</td>
<td>42</td>
</tr>
<tr>
<td>Subject 8</td>
<td>42</td>
</tr>
<tr>
<td>Interobserver Reliability Data</td>
<td>43</td>
</tr>
<tr>
<td>V. DISCUSSION</td>
<td>46</td>
</tr>
<tr>
<td>Training Independent Self-Care Skills</td>
<td>46</td>
</tr>
<tr>
<td>Covariation of Problem Behaviors and Family Events</td>
<td>48</td>
</tr>
</tbody>
</table>
Table of Contents--Continued

Audio Taping for Reliability and Subjective Observations .................... 49
Methodological Problems .................... 51
Conclusions ................................. 52

APPENDICES

A. Consecutive Program Description .................. 54
B. Concurrent Program Description .................. 57
C. Informed Consent .................................. 60
D. Consecutive Program Schedule .................... 63
E. Consecutive Time Lagged Program Schedule ...... 65
F. Concurrent Program Schedule ..................... 67
G. Concurrent Time Lagged Program Schedule ...... 69
H. Child Self-Care Skills, Problem Behaviors, and Family Events ......................... 71
I. Definitions of the Child Self-Care Skills .... 73
J. Problem Behaviors .................................. 76
K. Family Events List ................................. 78
L. Stanford Preschool Internal-External Scale .................................. 81
M. Administration Procedure for the Stanford Preschool Internal-External Scale ...... 83
N. Sample "My good morning list!" Poster ........ 87
N. Positive Self-Instructions .......................... 89
P. Human Subjects Institutional Review Board Approval Form ......................... 91

BIBLIOGRAPHY ......................................... 95
LIST OF TABLES

1. Mean Scores on the Stanford Preschool Internal-External Scale (SPIES) for the Concurrent and Consecutive Programs......................... 35

2. Interobserver Reliability Between the Parent Report and the Audio Tapes for the Morning Self-Care Skills................................. 45
LIST OF FIGURES

1. Biweekly Counts of Morning Self-Care Skills Initiated Alone and Initiated and Completed Alone (a star marks sessions when the poster and self-instructions were not used.) .................. 27

2. Mean Counts of Morning Self-Care Skills, Evening Self-Care Skills, Morning Problem Behaviors, and Weekly Family Events During Each Phase of the Study................................. 29

vii
CHAPTER I

INTRODUCTION

Teaching children to be independent is a challenge for parents. Many of the tasks which need to be accomplished to promote an organized, healthy, educated, and productive life involve assessing what needs to be done and completing the task with little or no immediate benefits. Initially, parents act as behavior change agents by prompting appropriate behaviors and then giving their children either generalized reinforcement, such as praise, contingent upon accomplishing tasks or punishment contingent upon not accomplishing tasks. Later, parents fade prompts and delay consequences, expecting their children to accomplish such tasks without constant prompting and contingent reinforcement or punishment. Therefore, it is important for children to learn strategies for managing their own behavior even when social contingencies are withdrawn. This involves a transfer of stimulus control and consequences from the parent to the environment.

The first tasks children often learn involve self-care skills, such as getting ready for the day or getting ready for bed. This involves two processes:
initiating the appropriate self-care skill at the appropriate time and persisting on a self-care skill or series of self-care skills until completed.

The purpose of this study was to observe some of the methods which parents use to teach their 4-year-old children independent self-care skills and to test the effects of a parent training program. The program was designed to transfer stimulus control from the parents' physical or verbal prompts to textual and picture prompts on a poster which listed the morning self-care skills and to positive self-instructions for using the poster and completing self-care skills. Parents were trained to teach their children how to use a poster as a "to do list" to initiate and complete a series of morning self-care skills. The seven children were simultaneously or subsequently taught to use positive self-instructions to facilitate completion of the self-care skills. A within subject multiple baseline across subjects design was used to compare the effects of a concurrent, poster with self-instruction, training package versus a consecutive, poster followed by self-instruction, training package.

The hypothesis was that the poster alone phase would most impact skill initiation by acting as a prompt but that it would not necessarily impact skill completion. An additional hypothesis was that the positive self-instructions would most impact skill completion by
facilitating persistence on task. Twice a week, parents reported how much supervision the child received in initiating and completing each morning self-care skill. Evening self-care skills were measured as well to assess for generalization or act as a maturation control. The parents also reported specific problem behaviors and family stressors to assess possible reasons for differences in the effectiveness of the program from one family to another. Before and after each phase of the program, the children were asked questions to measure internal locus of control to assess whether becoming more independent in initiating and completing self-care skills correlated with an increase in internal locus of control.
CHAPTER II

REVIEW OF SELECTED LITERATURE

Transfer of Stimulus Control

Learning to initiate the appropriate self-care skill involves a transfer of stimulus control from the parent to the environment. At first, the parent initiates and completes all of the self-care skills while the child is passive. At the end of the process, the child initiates and completes the self-care skills and the parent is passive. Between these two extremes, parent-dependent care and child independent self-care, several changes in the pattern of parent-child interactions must take place. This process transfers stimulus control from the prompt to natural stimuli (Billingsley & Romer, 1983).

Schoen (1986) states verbal, model, or physical prompts are used to facilitate correct responding. These prompts must eventually be removed for independent performance in the presence of naturally occurring stimuli. There are several different procedures for transferring control to the naturally occurring stimuli; they include stimulus fading, stimulus shaping, increasing assistance, decreasing assistance, graduated guidance, and time delay.
"The most-to-least prompting procedure, also referred to as physical prompting and fading, physical guidance, putting through, and decreasing assistance, is the most widely used instructional procedure for teaching response chains" (Wolery & Gast, 1984, p. 56). It has been most widely researched with older developmentally disabled individuals, but it is also used for teaching response chains to preschool children (Wolery & Gast, 1984). In the home setting, the parent often utilizes a most-to-least prompting procedure by allowing the child to complete self-care skills (a) with full physical assistance with verbal direction, (b) with minimal physical assistance increasing verbal direction, (c) with only verbal assistance, (d) without assistance and with continuing supervision to provide consequences, and ultimately (e) without any supervision at all.

The fading of prompts may not be quite so systematic as described above. Once the child is able to complete each of the self-care skills the parent is likely to change from the most-to-least prompting procedure to the system of least prompts. The system of least prompts involves providing the child the opportunity to perform the self-care skill with the least amount of assistance before presenting increasingly more intrusive prompts (Wolery & Gast, 1984). Several variables may account for parents using increasing assistance: the self-care skill
may be unusually difficult (for example, some clothes are more difficult for a child to put on than others), the child may be unusually tired or noncompliant, or the parent may be in a hurry.

A textual or pictorial list of the sequence of tasks or parts of a complex task can function as an intermediary method between verbal prompts and transferring stimulus control to the natural cues. Picture prompts have been utilized to train developmentally disabled children to perform complex vocational tasks and a sequence of tasks (Frank, Wacker, Berg, & McMahon, 1985; Nietupski, Clancy, & Christiansen, 1984; Sowers, Verdi, Bourbeau, & Sheehan, 1985; Wacker & Berg, 1983; Wacker & Berg, 1984; Wacker, Berg, Berrie, & Swatta, 1985; Wacker, Berg, Choisser, & Smith, 1989). There have been no studies using picture prompts as a list to help normal preschoolers with a sequence of tasks such as getting ready for the day. Prompts can facilitate task initiation. Self-instructions have been demonstrated to facilitate task completion.

Self-Instructions and Task Completion

Meichenbaum and Goodman (1969) did some pioneering work on the use of self-instructions to facilitate task performance. One experimental study with kindergarten and first grade children tested the effects of the
self-instructions "faster" and "slower" on a finger tapping response. The most effective self-instructions were overt for the kindergarten children and covert for the first grade children.

Meichenbaum and Goodman (1971) applied the above findings to students in a special education class for children with behavior problems, such as hyperactivity and poor self-control. The self-instruction training package involved several steps: (a) the experimenter modeling performing the task while overtly verbalizing self-instructions, (b) the child performing the task while the experimenter stated the self-instructions, (c) the child performing the task and stating the self-instructions out loud, (d) the child performing the task and stating the self-instructions in a whisper, and finally (e) the child performing the task and stating the self-instructions without lip movements. Self-instructions pertained to (a) questions about the task to be done, (b) answers to the question or planning, (c) self-guidance and error correction during task performance, and (d) self-reinforcement. The training tasks involved a variety of sensory-motor and problem-solving skills. The results indicated an improvement on all tests for the self-instruction training group over an attention control group and an assessment control group. A second study reported in the same article showed that
explicit self-guidance was more effective than general self-instructions.

There have been several systematic replications of the Meichenbaum and Goodman training package (Bornstein & Quevillon, 1976; Burgio, Whitman, & Johnson, 1980; Douglas, Parry, Marton, & Garson, 1976; Guralnick, 1976). These studies have generally reported positive results using a variety of dependent variables.

Others have completed component analysis research to determine what kind of self-instructions are most effective. Masters and Stantrock (1976) did a series of studies with 4-year-olds evaluating the effects of different self-instructions on "persistence on task." They found the most effective self-instructions were positive task relevant, positive affective events, low evaluations of task difficulty, positive evaluations of task performance, and positive affective tone. For each study the children rotated a handle to turn on lights in a tower as long as they cared to and signaled the experimenter when they wished to stop. The first study was to test the effect of task-relevant positive and negative evaluations. The children who were told to say "This is no fun" persisted significantly less than the children who were told to say "This is fun" or "Two-one, two-one." The second study tested the effect of task-irrelevant verbalization of positive and negative
affective events. The children who were told to talk about their favorite things, for example "eating ice cream cones," persisted five times longer than the children who were told to talk about unpleasant things, such as "falling down." The third study was to test the effect of evaluations of task difficulty. The children who were told to say "This is easy" persisted over two times more than the children who stated "This is hard." The fourth study was to test the effects of verbalized evaluations of task performance such as pride or self-criticism on task persistence. Children who were told to say "I'm really good at this" persisted three times more than children who were told to say "I'm no good at this." The final study was to test the effects of verbalized task evaluations with variations in affective tone. There were nine different experimental conditions. The children were told to say "This is easy" with positive affect (enthusiasm), neutral affect, or negative affect (disdain); "This is hard" with positive affect (like a welcome challenge), neutral affect, or negative affect (dislike); or "This isn't easy or hard--it's in the middle" with positive, neutral, or negative affect. Children's task persistence was greatest for the statements "This is easy" with either neutral or negative affect and "This is hard" with positive affect. This study is most interesting because the children responded
differentially to what they were told to say irrespective of what they may have thought about the task or their performance.

Mischel and Patterson (Mischel & Patterson, 1976; Patterson & Mischel, 1976) analyzed the effects of different self-instructions for preschool children working at a lengthy repetitive task in the face of tempting distractions. They found temptation-inhibitory self-instructions were more effective than task-facilitating ones and elaborated self-instructions more effective than unelaborated ones. One study (Patterson & Mischel, 1976) analyzed the differential effects of two sets of self-instructions: a task-facilitating plan versus a temptation-inhibitory plan. Subjects who stated the temptation-inhibitory plan or the combination plan spent significantly more time working, completed more work, and looked at the distracter for shorter mean lengths of time than those who stated the task-facilitating plan. The other study (Mischel & Patterson, 1976) compared the effects of different self-instructions: reward-oriented plan, temptation-inhibitory plan, task-facilitating plan, and control. For each plan there was an elaborated version, in which the child was told the words he was to say and an unelaborated version, in which the child was told what to talk about, with the wording left unspecified. The task-inhibiting and reward-oriented
plan given in the elaborated form were the only plans which significantly increased persistence on the tasks.

For very young children self-instructions can actually interfere with task completion. Higa, Tharp, and Calkins (1978) did a study on self-instructions with a negative result which needs to be considered. They completed a systematic replication of Meichenbaum and Goodman (1969), utilizing the signaled motor response of pushing a telegraph key when the blue light came on and not pushing when the yellow light came on. The self-instructions were simply "push" or "don't push." Their subjects were 5-, 6-, and 7-year-old children and they reported that for the younger children verbalizing seemed to constitute a second task which interfered with motor responding. When very young children are performing novel motor responses, self-instructions should be brief to prevent task interference.

Positive self-evaluations of performance can be more effective than tangible rewards. Masters, Furman, and Barden (1977) did a study on the effects of achievement standards, tangible rewards, and self-dispensed achievement evaluations on nursery school children's task mastery. They reported that the self-dispensed achievement evaluations, saying "I did very good" when matching the standard, were actually more effective than the externally-dispensed tangible rewards.
In summary, the above studies have demonstrated that self-instructions can be effective in facilitating performance on tasks. Self-instructions appear to be most effective when they are audible, elaborated, temptation inhibiting, and evaluating tasks as being easy. Self-instructions are more effective if they are stated in a positive manner, whether they are task-relevant, task-irrelevant, or evaluations of task performance. With young children, care must be taken to be certain the self-instruction does not become a second task which interferes with the primary task performance.

In conclusion, teaching children to become independent is a complex and challenging task. Children learn to complete tasks independently when parents fade physical and verbal prompts and transfer stimulus control to the environment. A picture poster list can function as a supplementary textual prompt for initiating the appropriate self-care skill in the appropriate sequence. Positive self-instructions increase persistence on tasks and thereby facilitate task completion. Most studies have primarily utilized artificial tasks, settings, and behavior change agents. This study used the daily self-care skills in the home setting with the parents as behavior change agents.
CHAPTER III

METHOD

Subjects

The subjects were seven 4-year-old, female preschool students. The experimenter discussed with their parents a self-management program for children who were physically capable of getting ready for the day, but needed supervision to get all the self-care skills completed.

During the first home visit, the experimenter gave the parents one of two program descriptions (Appendix A or B); the informed consent (Appendix C); one of four program schedules (Appendix D, E, F, or G); the form for recording Child Self-Care Skills, Problem Behaviors, and Family Events (Appendix H); the Definitions of the Child's Self-Care Skills (Appendix I); and the Family Events List (Appendix J). After the parents gave their consent for the program, the experimenter administered the Stanford Preschool Internal-External Scale (SPIES) (Appendix K) to their child that day and began calling for baseline data the next week.
Setting

The setting was in the home of each child. Parents were cautioned not to change room arrangements or placement of clothes during the program. The experimenter visited the homes to discuss details of the program schedule, the measures, and the intervention a total of five times during the study.

Materials

The families made 45-minute audiotape recordings two mornings a week and mailed tapes to the experimenter. The tape recording of the morning ritual was used to assess interobserver reliability of parent report data and to increase the accuracy of the parent report data. Layne, Rickard, Jones, & Lyman (1976) have reported increased accuracy of self-report data with knowledge of reliability checks. The tapes were also useful for observing some unexpected changes in the parent-child interactions during the intervention phase.

The "My good morning list!" poster (Appendix N) was a list of the nine self-care skills with a small drawing and one or two words to describe the skill. For example, "Wash up" had a drawing of a hand and soap next to it. To the right of the list was a removable weekly calendar so the parents and child could mark "s" for each self-care skill the child started without a prompt from the
parents and "f" for each skill the child finished without any assistance from the parents. The parents selected the order of the self-care skills for their child's "My good morning list!" poster to conform with their usual routine.

Measures

Four measures were used throughout the study. Two parent report measures were obtained twice a week. The Child Self-Care Skills Checklist (Appendix H) was designed for this study by the author. The list of Problem Behaviors (Appendix H) was adapted from the "Parent Daily Report" (Appendix J) (Patterson, Reid, Jones, & Conger, 1975). One parent report measure was obtained once a week. The Family Events List (Appendix K) was adapted from the "OSLC Family Crisis List" (Patterson, 1982). The child self-report measure (Appendix L) was administered at phase changes. The Stanford Preschool Internal-External Scale (SPIES) (Mischel, Zeiss, & Zeiss, 1974) was titled The Stanford Preschool Inventory on the copy given to the parents.

The purpose of these measures was to assess the covariation of the phases of the program with the child's level of independence on self-care skills of the morning and evening rituals, the child's problem behaviors, occurrences of family events, and the child's reports of
perceived locus of control.

**Child Self-Care Skills Checklist**

The Child Self-Care Skills Checklist (Appendix H) was a parent report measure, designed for this study, to assess the child's level of independence on a number of self-care skills on a given day. There were two sequences, the nine morning self-care skills and the six evening self-care skills. For each self-care skill the experimenter asked the parents: (a) who initiated the skill that day (child, parents, parents twice, no one), (b) how much assistance the child received (no supervision, no assistance, verbal assistance, reminder to complete, physical assistance, parents complete the skill for the child), and (c) how the parents responded after the task was completed (physical touch, verbal-vocal, verbal-nonvocal, positive, neutral and negative). The experimenter gave the parents the Definitions of the Child Self-Care Skills (Appendix I) at the initial home visit and reviewed them during the first two phone calls; she made occasional clarifications during other phone calls. Well defined child behaviors contribute to higher parent-experimenter interobserver reliability (Douglas, Lawson, Cooper, & Cooper, 1968).

The Child Self-Care Skills Checklist also assessed the implementation of the interventions by recording
whether or not the child used the "My good morning list!" poster and the positive self-instructions.

Twice each week the experimenter phoned the parents at a prearranged time and asked which self-care skills their child had initiated and completed during the day. Patterson (1982) has reported less distortion of reports when the parents are asked to report on the previous 8 to 10 hours.

The Child Self-Care Skills Checklist was the main dependent variable used to assess the changes in the child's level of independence on the morning self-care skills. It also included questions for assessing the frequency of the implementation of the independent variables, the poster and self-instructions. Changes in the child's level of independence on the evening self-care skills were measured to assess for generalization or to act as a maturation control.

Problem Behaviors

The list of problem behaviors, part of Appendix H, includes 36 typical problem behaviors such as complaining or not minding. This list was adapted from the "Parent Daily Report" of the Oregon Social Learning Center (Patterson et al., 1975, p. 161) (Appendix J). The title was changed for this study because data was not obtained "daily" and the title did not specify what was being
reported.

During the semi-weekly phone calls the experimenter asked the parents to specify occurrences of problem behaviors during the morning ritual, the evening ritual, and other times during the past 24 hours. This measure has been found to correlate significantly (.69) with observational data even though the times for observation differ (24 hours versus 1 hour) and some of the behaviors differ (low frequency behaviors such as stealing versus high frequency behaviors such as disapproval and negativism) (Patterson, 1976).

The purpose of Problem Behaviors was to assess (a) whether problem behaviors covary inversely with child self-care skills and (b) whether there were any problem behavior "side effects" to the intervention.

**Family Events List**

The Family Events List (Appendix K) includes 71 family events such as arguments, a new baby sitter, and unexpected bills. The Family Events List was called the "OSLC Family Crisis List" by the Oregon Social Learning Center (Patterson, 1982, pp. 314 and 315). The title was changed because the term "crisis" seemed too reactive and could have led to under-reporting by parents. The Family Events List identifies difficulties in many areas which can affect family functioning: household, economic,
health, employment, school, social interchange, legal, and recreation.

During the second of the semi-weekly phone calls, the experimenter asked the parents to identify the family events of the past week.

The purpose of the Family Events List was to assess whether some variability in responding on the child self-care skills can be accounted for by more global changes in the home environment.

**Stanford Preschool Internal-External Scale**

The Stanford Preschool Internal-External Scale (SPIES) (Mischel et al., 1974) (Appendix L) assessed the child's reports about whether events occur as a consequence of her own action (internal control) or as a consequence of external forces (external control). The copy given to the parents and referred to in the program description (Appendices A and B) was entitled "Stanford Preschool Inventory" so the parents would not try to influence their child's perceived locus of control. There were 14 forced choice questions to assess reports of locus of control for positive events and negative events. The administration procedure was outlined by Mischel et al. (1974) (Appendix M).

The children answered the questions on the SPIES during the home visits: before baseline, after baseline,
after the first half of the intervention phase, after the second half the intervention phase, and after follow-up.

The purpose of the SPIES was to assess covariation between the level of independence on the self-care skills and the degree of internal locus of control.

**Procedure**

**General Experimental Design**

The experimenter randomly assigned the children to one of the four different schedules (Appendix D, E, F, or G). A multiple baseline across subjects or time lagged control design was implemented to evaluate treatment effectiveness (Baer, Wolf, & Risley, 1968). Half of the children were assigned to the time lagged control. The baseline or assessment phase was two weeks for subjects 1, 2, 5, and 6 and three weeks for subjects 3, 4, 7, and 8. A between subjects design was implemented to assess whether the program was more effective when the intervention was presented in stages or all at once. Subjects 1, 2, 3, and 4 were assigned to the consecutive program (A, B, B+C: baseline, poster alone for three weeks, poster with self-instructions) and subjects 5, 6, 7, and 8 were assigned to the concurrent program (A, B+C: baseline, poster with self-instructions). The parents of subject 7 dropped out on the first day of baseline data recording and efforts to secure another subject were
unsuccessful.

**Detailed Experimental Procedure**

**Assessment Phase**

The assessment phase was two or three weeks. Assessment measurements included: parent phone reports of Child Self-Care Skills, Problem Behaviors, and Family Events; audio tapings of the first 45 minutes of the parents' and child's day together; and the child responses on the SPIES.

During the first home visit the experimenter administered the SPIES to the child. She explained to the parents the program schedule, the purpose of baseline data, and the lists and definitions. She cautioned the parents to interact with their child as usual during baseline and only change their interactions according to the directions of the program coordinator during intervention.

On two prearranged days of the week, the parents taped the first 45 minutes of the day for the parent and child. The 90-minute tapes were then mailed to the experimenter. On the evening of the taping the experimenter phoned to obtain the parent report data. Parents were often reminded of the importance of giving accurate data and not changing the way they interact with their child.
**Intervention Phase**

The intervention phase was either five or six weeks. For the first three weeks of the intervention phase the consecutive program subjects (1, 2, 3, and 4) began using the "My good morning list!" poster alone. For the second half of the program they used the poster with the self-instructions. The concurrent program subjects (5, 6, and 8) used the poster with the self-instructions during the whole program.

The same measurement instruments used during the assessment phase continued to be used during the intervention phase. The intervention package was designed to increase the child's (a) level of independence for initiating self-care skills, (b) level of independence for completing self-care skills, and (c) frequency of positive self-instructions while doing morning self-care skills.

The experimenter acted as a consultant to the parents while the parents were the behavior change agents for their children. The parents taught their children to use the "My good morning list!" posters (Appendix N) to independently initiate self-care skills for the morning ritual.

For the first week of the intervention the parents went over the "My good morning list!" poster with the
child before the morning ritual and showed the child how to use the poster as a "to do list." When the child completed the prior self-care skill, instead of telling the child what to do next, the parents told the child to look at the list and asked the child "What did you do last?" and then asked "What do you do next?" During the second week the parents simply prompted with "What does the poster say you need to do next?" During the third week all such prompts were faded.

The parents also taught their children to use positive audible self-instructions (Appendix 0) while completing the self-care skills. The self-instructions were written on a slip of paper attached to the "My good morning list!" poster so the parents could easily refer to it.

The self-instructions included prompting statements, positive self-efficacy statements, positive skill-evaluating statements, and self-reinforcing statements. For example, before beginning a self-care skill a child might say, "Let's see, what do I have to do next?" After consulting the poster, she might affirm, "I can do that all by myself!" After the skill was completed, she might conclude, "Well, I've done a real good job!" Children were told to say the self-instructions with enthusiasm.

After the morning ritual the parents went over the list of self-care skills and asked the child whether or
not she started the skill without the parents' prompt. An "s" was placed next to each skill the child initiated. Then the parents asked the child whether or not she finished the skill without the parents' assistance. An "f" was placed next to each skill the child completed by herself. The child was corrected by the parents if she recalled incorrectly.

Follow-up

Six months after the last intervention session the experimenter phoned each of the parents to set up two phone appointments for obtaining a week of follow-up data. Follow-up instructions were similar to those for the assessment phase. The experimenter cautioned the parents to interact with their child in the same way as they had before follow-up began.

The same measurement instruments used during the assessment and intervention phases were used during the follow-up. Follow-up was different from assessment and intervention in two ways: the sessions were not audio taped and the SPIES was obtained by talking with the child on the phone instead of during a home visit.
CHAPTER IV

RESULTS

Consecutive Versus Concurrent Program Data

Morning Self-Care Skills

The findings indicate that the 4-year-old children were more independent in getting ready for the day when their parents taught them to use a poster list of the self-care skills as a prompt and use positive self-instructions to stay on task. The children increased the number of self-care skills initiated alone and skills initiated and completed alone.

There were some systematic differences between the early responding of the children in the consecutive program, poster alone for three weeks followed by poster with the self-instructions, and the children in the concurrent program, poster with the self-instructions for all six weeks. Some of the children in the consecutive program at first initiated and completed more self-care skills alone, but later refused to use the poster or self-instructions and nearly returned to baseline response levels. Other children in the consecutive program showed moderate increases in the number of skills
initiated alone and skills initiated and completed alone over the whole program. The children in the concurrent program made the largest increases in the number of skills initiated alone and skills initiated and completed alone, and maintained these increases for the whole program.

Figure 1 shows the number of morning self-care skills each child initiated alone and the number of skills each child initiated and completed alone. Figure 1 also identifies days when the intervention was not implemented, for example when a child refused to use the poster or when the parents were unusually hurried.

There was some variability in the baseline data, but no consistent trends. After the implementation of the poster alone or the poster with self-instructions, there was an increase in the number of self-care skills initiated alone and the number of skills initiated and completed alone. When the children did not use the poster and/or self-instructions during the intervention phase, responding returned to baseline levels. Subject 1, Subject 2, and Subject 4, who first used the poster alone and then the poster with self-instructions, refused to use the poster or self-instructions toward the end of the study. Subject 5 (see individual subject data) did not use the poster or the self-instructions after the first week and a half, thereby acting as an unplanned,
Figure 1. Biweekly Counts of Morning Self-Care Skills Initiated Alone and Initiated and Completed Alone (a star marks sessions when the poster and self-instructions were not used.)
no-treatment control subject, and her responding remained at baseline level throughout the study.

The first column of graphs in Figure 2 shows the mean number of morning self-care skills each child initiated alone and the mean number of skills each child initiated and completed alone for each phase of the study. For the consecutive program the graphs show a mean for the baseline (BL), poster alone (PA), poster with self-instructions (PS), and follow-up (FU) phases. For the concurrent program the graphs show a mean for the baseline (BL), the first half of the poster with self-instructions (PS), the second half of the poster with self-instructions (PS), and follow-up (FU) phases.

Figure 2 shows that Subject 1 and Subject 2 exhibited a large increase in the mean number of self-care skills initiated alone and the mean number of skills initiated and completed alone during the poster alone phase. Both Subject 1 and Subject 2 exhibited a reduction in the number of skills during the last weeks of the program. There was some recovery during follow-up. The data for Subjects 3 and 4 show moderate increases in the mean number of self-care skills initiated alone and the mean number of skills initiated and completed alone during all phases of the program and follow-up. Subject 5, who did not use the interventions, emitted nearly the same mean number of self-care skills.
Figure 2. Mean Counts of Morning Self-Care Skills, Evening Self-Care Skills, Morning Problem Behaviors, and Weekly Family Events During Each Phase of the Study.
initiated alone and the mean number of skills initiated and completed alone during all phases of the program and at follow-up. The data for Subjects 6 and 8 show the largest increases in the mean number of self-care skills initiated alone and the mean number of skills initiated and completed alone during the first half of the program, and these levels were maintained throughout the program.

Evening Self-Care Skills

No intervention was implemented for the evening self-care skills. Therefore, changes in responding on the evening self-care skills can be considered generalization, maturation, or a combination of generalization and maturation.

The second column of graphs in Figure 2 shows the mean number of evening self-care skills each child initiated alone and the mean number of skills each child initiated and completed alone for each phase of the study. During the program, all the children exhibited small or no increases in the mean number of evening self-care skills initiated alone and the mean number of evening skills initiated and completed alone. Greater increases occurred at the six month follow-up. The children who were the most dependent at the onset of the program exhibited the smallest increases in numbers of child self-care skills initiated alone and skills
initiated and completed alone.

Covariation of Problem Behaviors

The third column of graphs in Figure 2 shows the mean number of morning ritual problem behaviors, problem behaviors occurring during the portion of the morning when self-care skills were being completed. During the program the mean number of problem behaviors did not change very much for most of the children. Only Subject 4 exhibited a consistent decrease in the mean number of morning ritual problem behaviors during the intervention. Subject 1 and Subject 8 exhibited increased frequency of "not minding" reported during the mornings of the intervention phases. This might be considered a side effect of the increased demands during the intervention. Other children did not display any systematic changes in the frequency of individual problem behaviors during the program.

The increases in the level of independence during the program varied inversely to the number of problem behaviors. The children who exhibited the highest levels of problem behaviors benefitted the least from the program. Subject 5 exhibited many more problem behaviors than the other children. She refused to use the poster or the self-instructions. Subject 5's level of independence increased the least of all the children.
Subject 1 exhibited the second largest number of problem behaviors. She refused to use the poster during four of the six last sessions. Subject 1's level of independence increased for the first five sessions of the program and then returned to baseline levels. Subjects 2, 3, 4, 6, and 8 exhibited low numbers of problem behaviors and increased their levels of independence the most.

Covariation of Family Events

The fourth column of graphs in Figure 2 shows the mean number of weekly family events or family stressors reported for each phase of the study. The increases in the level of independence during the program also varied inversely to the number of family stressors. The children with the highest levels of reported family events benefitted the least from the program. Subject 1's mother reported the most family events and Subject 5's mother reported the second most family events; and those subjects increased their levels of independence the least. The parents of Subjects 2, 3, 4, 6, and 8 gave lower reports of family events and those subjects increased their levels of independence the most.

Changes in the Locus of Control

The Stanford Preschool Internal-External Scale (SPIES) (Mischel et al., 1974) was administered to assess
level of independence were correlated with increased internal locus of control. However, the children tended to answer the questions by simply repeating the last response of the SPIES which affected the validity and reliability of the measure.

There were fourteen forced choice questions to assess reports of locus of control for positive events and negative events. For the odd numbered questions the internal control response was said last and for the even numbered questions the external control response was said last (Appendix M, Administration of the Stanford Preschool Internal-External Scale). Most of the children answered the questions by simply repeating the last response and they did so more frequently toward the end of the study than at the beginning.

The test was administered before baseline, after baseline, after the first half of the intervention phase, after the second half of the intervention phase, and after follow-up. If the intervention had an impact, the two baseline scores should be more similar to each other than they are to the two intervention scores. However, there was nearly the same amount of variability for individual answers within the two baselines and intervention scores as between the baselines and the interventions.

The changes in the mean SPIES scores did covary with
the increased level of independence (see Table 1). The mean total internal scores did increase after the intervention for both programs, indicating an increased perceived ability to control outcomes. The mean total internal scores returned to baseline levels for the second part of the consecutive program similarly to the manner in which the number of self-care skills decreased for two of the children after the poster alone phase.

The small increase in total internal scores is probably not significant. The variability within the two baseline sets of scores and within the two intervention sets of scores was as great as the variability between baseline and intervention. Additionally, because the children often answered questions by simply repeating the last response, there was questionable reliability or validity of the SPIES.

**Individual Subject Data**

**Subject 1**

Subject 1 was 54 months old at the onset of the study. For the last three sessions Subject 1 was getting up much earlier than usual and she refused to use the poster and say any self-instructions.

Over the course of the program Subject 1 increased the number of self-care skills initiated alone and skills
Table 1

Mean Scores on the Stanford Preschool Internal-External Scale (SPIES) for the Concurrent and Consecutive Programs

<table>
<thead>
<tr>
<th></th>
<th>CONSECUTIVE PROGRAM</th>
<th></th>
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<tr>
<td></td>
<td>pre-</td>
<td>after</td>
<td>after</td>
<td>after</td>
<td>follow-</td>
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<td>Score</td>
<td>base-line</td>
<td>base-line</td>
<td>poster alone</td>
<td>poster + SI</td>
<td>up</td>
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<td>2.8</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>total</td>
<td>5.5</td>
<td>5.6</td>
<td>6.3</td>
<td>5.5</td>
<td>6.1</td>
</tr>
</tbody>
</table>

|                      | CONCURRENT PROGRAM |             |                |                |                |
|                      | pre-               | after         | during         | after          | follow-        |
| Score                | base-line          | poster + SI   | poster + SI    | up             |                |
| positive             | 2.7                | 3.3            | 2.3            | 3.3            |
| negative             | 2.7                | 3.0            | 4.3            | 3.3            |
| total                | 5.4                | 6.3            | 6.6            | 6.6            |

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initiated and completed alone by the least amount of all the children in the study. Subject 1's baseline data (see Figures 1 and 2) for the nine morning self-care skills indicated an inconsistent pattern of skill initiation and completion. During the poster alone phase of the program, Subject 1 initiated a mean of 3.0 more skills per day and initiated and completed a mean of 0.9 more skills per day. These gains were lost during the poster with self-instruction phase of the program in part due to the aforementioned change in routine. During follow-up, she did initiate and complete a mean of 2.0 more skills per day than baseline.

Although there was no intervention for the six evening self-care skills, Subject 1 increased the number of skills she initiated and completed by a mean of 1.5 over the course of the program. In comparison to the other children in the study, Subject 1 exhibited the second highest number of morning ritual problem behaviors and her mother reported the highest number of family events, a mean of 7.3 family events per week. Subject 1's SPIES scores did increase by one point after baseline; however, the more often she answered the questions the more often she simply repeated the last thing the experimenter said.
Subject 2

Subject 2 was 49 months old at the onset of the study. Her mother reported that Subject 2 seemed bored with the poster and actually refused to use it for the last week and a half of the program. The mother also stated that it was very difficult for her to teach her daughter to use the self-instructions.

During the program, Subject 2 increased her level of skill initiation and completion the most of all the children in the study. Subject 2's baseline data for the morning skills indicate a consistent pattern of dependence on her parents to initiate most skills and do many skills for her. She initiated and completed a mean of 0.25 skills per day for the baseline phase. Subject 2 improved several aspects of her morning ritual behaviors during the poster alone phase: she reduced her dependence on her parents for doing many skills, initiated and completed a mean of 5.0 more skills per day, reduced noncompliance, and no longer omitted any skills. These gains were somewhat attenuated during the poster with self-instruction phase. During follow up, she initiated and completed 4.25 more skills than during baseline.

Subject 2 initiated and completed a mean of 1.25, 2.0, 2.5, and 3.5 evening self-care skills for the
baseline, poster alone, poster with self-instruction, and follow-up phases respectively. In comparison to other children in the study, she exhibited a consistently low number of problem behaviors for all phases of the program and her mother reported few family events per week. There were no systematic changes in the scores of the SPIES.

**Subject 3**

Subject 3 was 47 months old at the onset of the study. Subject 3 showed slow steady moderate progress during the course of the program. Her baseline data for the nine morning self-care skills indicated the highest level of initiating skills alone. Although she continued to rely on her mother for physical assistance to complete many skills, she initiated a mean of 3.0 more skills per day and she initiated and completed a mean of 2.5 more skills per day at the end of the program than she did during baseline. Subject 3 was the only subject who continued to use her poster and some self-instructions at the time of follow-up and she initiated and completed two more skills than baseline.

Subject 3 initiated and completed a mean of 1.8 more evening self-care skills during later phases of the study. In comparison to other children in the study, she
exhibited a very low number of problem behaviors for all phases of the program and her mother reported a moderate number of family events per week. There were no systematic changes in the scores of the SPIES because she usually repeated the last item on the SPIES.

**Subject 4**

Subject 4 was 56 months old at the onset of the study.

Subject 4 showed slow steady moderate progress during the course of the program. Subject 4’s baseline data for the nine morning self-care skills indicated high levels of skill initiation and completion. Subject 4’s data were somewhat unique because she was the most independent in completing skills. Her mother would tell her to do something and then leave the room allowing Subject 4 to finish by herself. She initiated a mean of 2.0 more skills per day and she initiated and completed a mean of 2.7 more skills per day at the end of the program than she did during baseline. These gains were maintained at the time of follow-up even though she did not use the poster or self-instructions.

Subject 4 initiated and completed a mean of 1.8 more evening self-care skills during later phases of the study. She was the only subject who exhibited notably fewer problem behaviors during the intervention phase.
than during baseline or follow-up. Her mother reported a median number of reported family events. There were no systematic changes in the scores of the SPIES. Unlike most of the subjects she did not usually repeat the last thing the experimenter said. However, her responses to individual items on the test were inconsistent.

Subject 5

Subject 5 was 56 months old at the onset of the study. Subject 5's data actually could be considered a no-treatment control because, except for the first three sessions of the program, she never used her poster and she never did any self-instructions. The mother reported that Subject 5 did not want to use the poster. The mother described her own response to noncompliance: "I ask three times and if they (the children) don't do it I give up." The experimenter's efforts to convince the mother of the long range negative consequences of such a strategy for child rearing were unsuccessful.

Subject 5 did not use the poster or the self-instructions. She did not increase the number of morning self-care skills initiated and completed. Baseline data indicated she both initiated and completed a mean of 3.0 skills per day. During the first half of the poster with self-instruction phase, Subject 5 only used the poster for part of three days and she initiated and completed
0.4 fewer skills than during baseline. At the time of follow-up, she initiated and completed a mean of 3.0 more skills per day than baseline phase.

During the evening, Subject 5 initiated and completed one additional skill over the course of the program. In comparison to other children in the study, Subject 5 exhibited the highest number of different problem behaviors and her mother also reported the second highest number of family events or family stressors during the study. Subject 5 was resistant to answering the questions on the SPIES and she increasingly repeated the last item the experimenter stated.

Subject 6

Subject 6 was 50 months old at the onset of the study.

Subject 6's baseline data for the nine morning self-care skills indicated a consistent pattern of dependence on her mother to initiate most skills and do many skills for her. She initiated and completed a mean of 0.5 skills per day for the baseline phase. During the poster with self-instruction phase of the program Subject 6 demonstrated substantial improvement in reducing dependence on her mother for initiating many skills, but she remained quite dependent for completing most skills. During follow-up she continued to have much physical
assistance with skills.

During the evening, Subject 6 initiated and completed a consistently low number of self-care skills. In comparison to other children in the study, she exhibited a very low number of different problem behaviors throughout the program and her mother reported a low number of family events per week. Her SPIES scores did not systematically change during the study, but each time she took the test she was more likely to repeat the last item the experimenter said.

**Subject 7**

The parents of subject 7 dropped out of the study on the first day of baseline data recording and efforts to secure another subject were unsuccessful.

**Subject 8**

Subject 8 was 48 months old at the onset of the study.

Subject 8 was much more independent on the morning self-care skills during the intervention phase. She initiated and completed a mean of 4.5 more skills than during baseline. However, she was not using the poster or self-instructions during follow-up and the data showed almost a complete return to baseline.

The level of evening skill initiation and completion
changed very little during later phases of the study. In comparison to the other children, she exhibited a low number of problem behaviors. However, her mother reported an occurrence of "not minding" more frequently during intervention phases than during baseline or follow-up. This might be considered a negative side effect of the intervention. Her mother reported a moderate number of family events per week. Subject 8 almost always repeated the last item on the SPIES.

Interobserver Reliability Data

Interobserver reliability was based on a comparison of the parent report data and experimenter scores of audio tapes for the morning child self-care skills initiated and skills initiated and completed.

To assess reliability for the morning child self-care skills initiated and skills initiated and completed, the mothers made forty-five minute audio tapes on the mornings when the phone data were to be obtained. The mother turned on the tape recorder when the child awoke in the morning and ideally had the child take it with her when she moved from room to room while completing her self-care skills.

The experimenter listened to three tapes for each subject; one tape was randomly selected from each of three phases of the program: baseline, first half of
intervention, and second half of intervention. While listening to the tapes, she typed dictation whenever the conversation appeared to pertain to the skills. She then went over the transcripts and scored them. Because of the limitations of audio taped observations, the tapes were scored somewhat differently than the parent report data. There were three possible scores for initiation: child initiated, parent initiated, and parent initiated twice. There were four possible scores for completion: child completed, verbal assistance, remind to complete, and physical assistance. The experimenter did not score any skills "completed by the parent" or a "not initiated or completed." She only scored skills when it was clear, from what was being said or from other sounds on the tape, who initiated or who completed the skills. There were a possible 378 scores. The experimenter was able to score 121. The experimenter scores were compared with the parent report data and agreements and disagreements were totalled and percent reliability was determined by using the formula:

$$\text{Percent reliability} = \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \times 100$$

Table 2 shows the agreements, disagreements, total, and percent reliability for each subject and for all the subjects. The overall percent reliability was 76.0.
There was no pattern to the disagreements being more dependent or more independent. There were 29 disagreements between the parent report and the experimenter's score from the tape. For 16 disagreements the parent report was more independent and for 13 disagreements, more dependent. So there was no evidence of the parents trying to skew the data to make it appear as though their child were more independent.

Table 2

Interobserver Reliability Between the Parent Report and the Audio Tapes for the Morning Self-Care Skills

<table>
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<th>agree + disagree</th>
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</tr>
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<td>2</td>
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</tr>
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<tr>
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<td><strong>29</strong></td>
<td><strong>121</strong></td>
<td><strong>76.0</strong></td>
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CHAPTER V

DISCUSSION

Training Independent Self-Care Skills

The purpose of the program was to teach parents to help their preschool children become more independent in getting ready for the day. The program trained parents to transfer stimulus control to a picture poster by prompting use of the poster and fading verbal or physical prompts for initiating self-care skills. It also trained parents to teach their children to use positive self-instructions to assist them in initiating and completing the self-care skills. The children increased the number of self-care skills initiated alone and skills initiated and completed alone.

A within subject multiple baseline across subjects design was used to compare the effects of a concurrent, poster with self-instruction, training package versus a consecutive, poster followed by self-instruction, training package. The hypothesis was that the poster alone phase would most impact skill initiation by acting as a prompt but that it would not necessarily impact skill completion. An additional hypothesis was that the positive self-instructions would most impact skill
completion by facilitating persistence on task (Masters & Stantrock, 1976; Mischel & Patterson, 1976; Patterson & Mischel, 1976). However, the results showed that the children who used the poster alone during the first half of the program both initiated and completed skills as readily as those who used the poster with the positive self-instructions.

With small children, self-instructions may interfere with responding because they are an additional task to be learned (Higa et al., 1978). However, results showed that the children in the concurrent program made somewhat larger increases in the number of skills initiated alone and skills initiated and completed alone and that they better maintained these increases over the course of the program. Therefore, instead of acting as an interfering task, the positive self-instructions appeared to act as a motivator both to utilize the poster as a prompt and maintain independence.

The purpose of assessing changes in the evening self-care skills was to measure either generalization or to act as a maturity control. Evening self-care skill initiation and completion increases were small and steady and tended to be the highest at the six month follow-up. This pattern is consistent with no generalization but some maturation.
Covariation of Problem Behaviors and Family Events

Often when a program is implemented there is variability in the amount of improvement between subjects. This study assessed several additional variables to try to determine what might account for the differences in amount of improvement.

Improvement in self-care skills varied inversely with the number of problem behaviors and family events. Problem behaviors could be competing activities or noncompliant behavior such as refusal to use the poster and self-instruction. Problem behaviors could also be indirect indicators of the parent's ability to successfully consequeate the child's behaviors. A high number of family events might also be an indication of the low predictability of schedule and of consequences.

It was unfortunate the SPIES (Mischel et al., 1974) had such questionable reliability because it would have been an important finding had internal locus of control been increased by a self-management program. However, the reliability was poor, the increase in internal locus of control was small, and the within-phase variability was so large that it would be erroneous to state that there was a significant change.
The audio tapes were utilized to assess the reliability of parent reports of child self-care skills, to assess the reliability of parent reports of the utilization of the poster and self-instructions, and subjectively to assess the impact of the program on parent-child interactions.

The audio tapes were used to calculate interobserver reliability of the parent report data and experimenter scores for the morning child self-care skills initiated alone and skills initiated and completed alone. The total percent reliability was 76.0. The audio tapes seemed to be a useful tool for reliability of initiation and completion of child self-care skills. However, they were probably not as good as observational data because over two-thirds of the skills could not be scored. There was no way to discriminate between silent completion of a task and silent omission of a task.

The audio tapes indicated the parents did tell their children how to use the poster and self-instructions in the manner in which they were instructed by the experimenter. However, after the first morning using the poster with the self-instructions, the parents more frequently prompted their children to use the poster than to use the self-instructions. Implementation of the
self-instructions appeared to be better for those who were taught to use it at the time of the introduction of the poster. The poster then became a prompt for using self-instructions as well as for initiating and completing skills.

The audio tapes were used subjectively to assess the program's impact on parent-child interactions. During baseline, the focus of the morning routine was on creative ideas and relationships. For example, there were animated discussions as to what it would be like to be a unicorn and a discussion of the meaning of the words "cousin" and "uncle." The morning ritual was quality time with the parent. However, during the program interactions became task oriented and pedagogical. Parents would respond to off-task questions about imaginative things with "What does your poster say you're supposed to be doing next?" The morning ritual had lost its magic. Garbarino (1986) was concerned about how soon parents tend to give children responsibility for self-care. He wondered if America can afford the luxury of childhood. In the rush to get everyone off to work or school one wonders if America can afford quality time with children during the morning ritual.

In conclusion, the audio tapes were useful for assessing the reliability of the independent variable and the dependent variable, as well as for subjective
observations of the effects of the experiment. The audio tapes have utility in research, but would also have utility for clinicians who do not have time to make home visits but would like to assess audible communication patterns either objectively or subjectively.

Methodological Problems

The primary methodological problem was the failure to systematically assess the effect of the components of the program. The program introduced the poster and the positive self-instructions; however, the parents also appeared to encourage independence more actively during the intervention phase. Future research could have a phase between baseline and implementation of the poster and self-instructions. During this intermediary phase the parents could fade verbal and physical prompts and encourage independence for initiating and completing skills. This would assess whether the poster or the encouragement caused the children to be more independent.

When the study was proposed, it was thought that the principal confounding variable would be the reactivity to the assessment tools, the phone data and the audio taping. Audio taping was selected because it is less intrusive than more reliable observation methods such as having trained observers in the home (Patterson, 1982) and video taping (Field & Ignatoff, 1981). The parents
and children all said the tape recorder was all but forgotten after the first week. Frequently, the tape recorder was literally forgotten, left behind to record a silent bedroom as the child and her parent went into the bathroom or kitchen.

An additional confound was maturity. Preschool children quickly learn to be independent with self-care skills without special training programs. To control for incidental learning, the intervention phases of the program were kept brief.

Conclusions

The purpose of this study was to observe some of the methods which parents use to teach their preschool children independent self-care skills and test the effects of a parent training program. The program was designed to transfer stimulus control from the parent's physical or verbal prompts to textual and picture prompts on a poster listing the morning self-care skills and to positive self-instructions for using the poster and completing self-care skills. A within subject multiple baseline across subjects design was used to compare the effects of a concurrent, poster with self-instruction, training package versus a consecutive, poster followed by self-instruction, training package. Twice a week, parents reported how much prompting the child received in
initiating and completing each self-care skill for getting ready for the day.

The children in the concurrent program made somewhat larger increases in the number of morning self-care skills initiated alone and skills initiated and completed alone; also, they better maintained these increases over the course of the program. The self-instructions facilitated task completion as also found by Masters and Stantrock (1976) and Mischel and Patterson (1976). Self-instruction did not appear to act as a competing task as found by Higa et al. (1978).

The audio tapes were useful for assessing the reliability of parent reports of child self-care skills, assessing the reliability of parent reports of utilization of the poster and self-instructions, and subjectively assessing the impact of the program on parent-child interactions.

Future research could assess the differential effects of the parents simply fading prompts and giving encouragement to be independent versus using a poster and self-instructions with the parents fading prompts and giving encouragement to be independent.
Appendix A

Consecutive Program Description
Program Description

Program name: Evaluation of a training package for the self-management of child self-care skills.
Investigator: Dalene DeGraaf VandenHoek
             924 Beauford S.E.
             Grand Rapids, MI 49508
             455-4610
Program Dates: March 16 through May 11, 1987

Dear Parent,

My son, Nathan, is a classmate of your child who attends the Monday and Wednesday morning sessions at St. Mark's Christian Nursery School. I am a doctoral student in the Department of Psychology at Western Michigan University. My dissertation is on a program for teaching four year old children to independently get ready for the day. This topic was chosen because using positive ways to independently complete tasks is an important skill for young children to learn. I asked you to consider being in my program because your child is a student at St. Mark's. Like other students, your child is a typical four year old. You have told me your child is physically able to get ready for the day, but still requires supervision to initiate and complete all of the individual tasks.

Some studies indicate that preschool children can learn which task to do next by using a picture poster list of the tasks. Also, children tend to stick with a given task until it is finished if they talk to themselves positively about what they are doing. I will teach you how to teach your child to use these methods to independently get ready for the day.

There are some things you and your child will need to do to help me accurately measure the effects of this program.

1. I will meet with you and your child three or four times during and after the eight week program. During the meeting I will carefully explain each phase of the study and ask your child fourteen questions about how he/she views positive and negative things which might happen in a typical day (see attached Stanford Preschool Inventory).
2. Twice a week, I will call you on the phone to ask what self-care tasks your child initiated and completed that day and any problem behaviors which occurred while the child was getting ready for the day or getting ready for bed (see attached child self-care skills list). Once a week I will also ask about family events which may have an impact on the family routine and on the child's task completion (see attached family events list). These phone calls will take about 15 minutes of your time.

3. On the morning I am scheduled to call, you will be asked to audio tape the first forty five minutes of your child's day. The tapes will not be marked with your or your child's name and will be stored in my home safe. I will be the only person listening to the tapes. I will use them to check on some of the things you have told me on the phone and be sure you and your child are using the methods taught in the program correctly.

There are three phases to the eight week program. The first phase will last two or three weeks. This phase will measure your child's current level of independence. It is important that you and your child do everything as you normally do during this phase. The effects of the program will be based on changes in your child's level of independence. Your child will not be compared with any other children in the study, only with his/her own initial two or three weeks in the study. The second phase will last three or four weeks. During this phase you will be taught to teach your child to use a picture poster list to decide what needs to be done next and record that it is finished. The third phase will last until the end of the program. During this phase you will be taught how to encourage your child to talk positively to himself/herself about the tasks which are being done and have been completed. At first your child will be encouraged to talk to himself/herself out loud to be sure his/her talking is done correctly and is most effective. The last week of the program he/she will be taught to talk without moving the lips or making a sound.

This past summer and fall I pretested this program with my son, Nathan. I found the program to be very helpful. It was facinating to watch him become more independent and enjoy it, too. I hope you enjoy being part of the program as much as I am doing it.
Appendix B

Concurrent Program Description
Program Description

Program name: Evaluation of a training package for the self-management of child self-care skills.

Investigator: Dalene DeGraaf VandenHoek  
924 Beauford S.E.  
Grand Rapids, MI 49508  
455-4610

Program Dates: March 16 through May 11, 1987

Dear Parent,

My son, Nathan, is a classmate of your child who attends the Monday and Wednesday morning sessions at St. Mark's Christian Nursery School. I am a doctoral student in the Department of Psychology at Western Michigan University. My dissertation is on a program for teaching four year old children to independently get ready for the day. This topic was chosen because using positive ways to independently complete tasks is an important skill for young children to learn. I asked you to consider being in my program because your child is a student at St. Mark's. Like other students, your child is a typical four year old. You have told me your child is physically able to get ready for the day, but still requires supervision to initiate and complete all of the individual tasks.

Some studies indicate that preschool children can learn which task to do next by using a picture poster list of the tasks. Also, children tend to stick with a given task until it is finished if they talk to themselves positively about what they are doing. I will teach you how to teach your child to use these methods to independently get ready for the day.

There are some things you and your child will need to do to help me accurately measure the effects of this program.

1. I will meet with you and your child three or four times during and after the eight week program. During the meeting I will carefully explain each phase of the study and ask your child fourteen questions about how he/she views positive and negative things which might happen in a typical day (see attached Stanford Preschool Inventory).
2. Twice a week, I will call you on the phone to ask what self-care tasks your child initiated and completed that day and any problem behaviors which occurred while the child was getting ready for the day or getting ready for bed (see attached child self-care skills list). Once a week I will also ask about family events which may have an impact on the family routine and on the child’s task completion (see attached family events list). These phone calls will take about 15 minutes of your time.

3. On the morning I am scheduled to call, you will be asked to audio tape the first forty five minutes of your child's day. The tapes will not be marked with your or your child's name and will be stored in my home safe. I will be the only person listening to the tapes. I will use them to check on some of the things you have told me on the phone and be sure you and your child are using the methods taught in the program correctly.

There are two phases to the eight week program. The first phase will last two or three weeks. This phase will measure your child's current level of independence. It is important that you and your child do everything as you normally do during this phase. The effects of the program will be based on changes in your child’s level of independence. Your child will not be compared with any other children in the study, only with his/her own initial two or three weeks in the study. The final phase will last five or six weeks. During this phase you will be taught to teach your child to use a picture poster list to decide what needs to be done next and record that it is finished and you will be taught how to encourage your child to talk positively to himself/herself about the tasks which are being done and have been completed. At first your child will be encouraged to talk to himself/herself out loud to be sure his/her talking is done correctly and is most effective. The last week of the program he/she will be taught to talk without moving the lips or making a sound.

This past summer and fall I pretested this program with my son, Nathan. I found the program to be very helpful. It was fascinating to watch him become more independent and enjoy it, too. I hope you enjoy being part of the program as much as I am doing it.
Appendix C

Informed Consent
Informed Consent

Program name: Evaluation of a training package for the self-management of child self-care skills.

Investigator: Dalene DeGraaf VandenHoek
924 Beauford S.E.
Grand Rapids, MI 49508
455-4610

Program Dates: March 16 through May 11, 1987

I, __________________________ (your name)
hereby give my informed consent to participate in this program with my child __________________________ (your four year old child's name). I understand that I may withdraw my consent at any time. I further understand that participation, refusal to participate, or dropping out of the program will in no way affect my or my child's relationship with St. Mark's Christian Nursery School. I understand that this program is not connected with the nursery school in any way except that the school is being used as a source for subjects for the study. Therefore, the data obtained for the program or any other information obtained will be kept strictly confidential and that all efforts will be made to keep my identity and my child's identity anonymous. I consent to allow this information to be presented to other professionals through reports and presentations, provided my and my child's identities remain confidential. I understand the only case in which confidentiality might be broken would be if there were evidence of child sexual or physical abuse or neglect as required of health professionals by law.

Benefits of participating in this program:

1. You will learn two methods which have been shown to be useful in assisting individuals to initiate and complete tasks.

2. You will learn how to teach your child to use the methods for initiating and completing child self-care skills involved in getting ready for the day.

3. Your child may develop increased self-confidence and self-discipline as a result of learning to independently get ready for the day.
4. The methods may be used by yourself or your child in the future with other tasks which need to be completed.

5. You will learn how to observe the interactions between yourself and your child in a systematic manner.

Risks of participating in this program:

1. The relationship with your child may temporarily become more structured and formal when you are first teaching your child the methods for initiating and completing tasks. You are encouraged to discuss any such changes or other concerns with the investigator at any time during the course of the study. You may call and we will talk on the phone or arrange a meeting at the earliest convenience.

2. Your child may temporarily become resistant to the changes brought about by the program. When a child (or adult) has had assistance with doing something, he/she may not at first want to have to do it all by himself/herself. Again, feel free to bring such things to the investigator's attention at any time.

3. Other children in the family may want to be a part of the changes brought about by the program. Please discuss these with the investigator and arrangements will be made. For example, if a sibling wants to use a poster too, an additional poster will be provided.

4. You may initially be uncomfortable with taping the two mornings a week or discussing the way you interact with your child with the investigator. Remember, your participation in the study is entirely voluntary and all tapes and discussions will be kept confidential.

______________________________  ______________________
Your signature                       Date

______________________________  ______________________
Your spouse’s signature              Date

______________________________  ______________________
Investigator                        Date
Appendix D

Consecutive Program Schedule
Program Schedule

Week:  
Mar 15  Mar 22  Mar 29  Apr 5  Apr 12  Apr 19  Apr 26  May 4

Dependent Variable

Parent Report: Phone Data
- Child Self Care Skills
- Problem Behavior Checklist
- Family Crisis Checklist

45 min Tape of Morning Ritual

Child Self Report Data
- Stanford Preschool Inventory

Independent Variable

Phase
---Base line---  ------ Train Poster ------  ------ Train Self-Instruction------
Poster Prompts
What do you look at next?  poster

Self-Instruction Prompts
I can  ------>  Talk to him/herself
I did  ------>  Task easy without moving lips or making sound

Meetings with parents
Appendix E

Consecutive Time Lagged Program Schedule
### Program Schedule

**Week:**
- wk 1: Mar 15
- wk 2: Mar 22
- wk 3: Mar 29
- wk 4: Apr 5
- wk 5: Apr 12
- wk 6: Apr 19
- wk 7: Apr 26
- wk 8: May 4

**Dependent Variable**

**Parent Report Phone Data**
- Child Self Care Skills
- Problem Behavior Checklist
- Family Crisis Checklist
- 45 min Tape of Morning Ritual

**Child Self Report Data**
- Stanford Preschool Inventory

**Independent Variable**

**Phase**
- Base line
- Train Poster
- Train Self Inst

**Poster Prompts**

**Poster S (start) + F (finish)**

**Self-Instruction Prompts**

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can</td>
<td>Talk to myself/him/her.</td>
</tr>
<tr>
<td>do</td>
<td>Task without easy moving lips.</td>
</tr>
<tr>
<td>a good</td>
<td>I did a good making job sound.</td>
</tr>
</tbody>
</table>

**Meetings with parents**

---

---
Appendix F

Concurrent Program Schedule
**Program Schedule**

### Week

<table>
<thead>
<tr>
<th>Week</th>
<th>wk 1</th>
<th>wk 2</th>
<th>wk 3</th>
<th>wk 4</th>
<th>wk 5</th>
<th>wk 6</th>
<th>wk 7</th>
<th>wk 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mar 15</td>
<td>Mar 22</td>
<td>Mar 29</td>
<td>Apr 5</td>
<td>Apr 12</td>
<td>Apr 19</td>
<td>Apr 26</td>
<td>May 4</td>
</tr>
</tbody>
</table>

### Dependent Variable

**Parent Report Phone Data**

- Child Self Care Skills
- Problem Behavior Checklist
- Family Crisis Checklist
- 45 min Tape of Morning Ritual

### Independent Variable

**Poster Prompts**

- "What do I look at next?"
- "Train Poster with Self-Instructions"

**Poster S (start) + F (finish)**

- "I can \(\rightarrow\)"
- "Talk to him/herself without moving lips or making sound"
- "Task \(\rightarrow\)"
- "easy"
- "I did \(\rightarrow\)"
- "a good job"

**Meetings with parents**

- 
- 
- 
- 
- 
-
Appendix G

Concurrent Time Lagged Program Schedule
**Program Schedule**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mar 15</td>
<td>Mar 22</td>
<td>Mar 29</td>
<td>Apr 5</td>
<td>Apr 12</td>
<td>Apr 19</td>
<td>Apr 26</td>
<td>May 4</td>
</tr>
</tbody>
</table>

**Dependent Variable**

- Parent Report Phone Data
  - Child Self Care Skills
  - Problem Behavior Checklist
  - Family Crisis Checklist
  - 45 min Tape of Morning Ritual

**Child Self Report Data**

- Stanford Preschool Inventory

**Independent Variable**

- Phase
  - <<---Base line----->
  - <<---Train Poster with Self-Instructions----->

- Poster Prompts
  - What do Look at next? poster

- Poster S (start) + F (finish)
  - I can -----> Talk to him/herself
  - Task -----> easy moving
  - I did -----> a good job

- Self-Instruction Prompts

- Meetings With parents
Appendix H

Child Self-Care Skills, Problem Behaviors, and Family Events
# Child Self-Care Skills Checklist

<table>
<thead>
<tr>
<th>Morning Ritual</th>
<th>Date</th>
<th>Day</th>
<th>Weak</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>removes night clothing with help with diaper</td>
<td></td>
<td></td>
<td>Initiate Assistance</td>
<td>Resp. Val.</td>
</tr>
<tr>
<td>selects clothing from those selected by parent</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td>no diaper</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>dresses self with help on pull overs, etc.</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td>appropriate for season, etc.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>makes bed</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>picks up own bedroom</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>clears own place at table</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>brushes teeth</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>wash face and hands using water</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td>using soap and water</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>combs hair</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ritual completed</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>approximate time for ritual</td>
<td>min</td>
<td>taped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paper used</td>
<td>as prompt</td>
<td>after ritual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>self instructions</td>
<td>spontaneous</td>
<td>programmed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening ritual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>picks up toys at the end of the day</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>removes dirty clothing in hamper</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>wash face and hands using water</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td>using soap and water</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>bades self washing own arms and legs</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td>including back neck and ears</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>puts on night clothes with help with diaper</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td>putting on night clothes with help with diaper</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>ritual completed</td>
<td>1 2 3 4</td>
<td>A B C D E F p v n a -</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Parent | Spontaneous | | |
|--------|-------------| | |
| What Initiated? | How much assistance? | | |
| child | no supervision | p | physical touch | + | positive |
| parent | no assistance | v | verbal - vocal | o | neutral |
| p. twice | verbal assistance | n | non vocal | - | negative |
| no one | | | | | |

<table>
<thead>
<tr>
<th>Problem Behaviors</th>
</tr>
</thead>
</table>

M = morning  E = evening  O = other time of day

## Family Events List Codes

Appendix I

Definitions of the Child Self-Care Skills
Definitions of the Child Self-Care Skills

A task is considered "child initiated":
(a) if the child begins to do the task without any prompt from the parent
(b) if the parent tells the child to look at his poster for what to do next and the child begins to do the appropriate task.
(c) if the parent tells the child to "get dressed" and the child (1) removes his clothes, (2) selects clothing, and (3) puts on new clothes, the first task is scored "parent initiated" and the second and third task are considered "child initiated."

A task is considered "parent initiated":
(a) if the parent begins to do the task without any attempt by the child
(b) if the parent tells the child to do a specific task
(c) if, after the child looks at the poster and still does not begin to do the task the parent tells the child to do the specific task or physically initiates the task.

General prompts such as "we’ve got to hurry" or "let's get ready" are not considered "parent initiated" for any particular task.

A task is considered "parent twice":
(a) if the parent has to specify which task needs to be done next more than once because the child does not begin the task
(b) if the parent specifies which task needs to be done next and then physically begins to do the task because the child does not begin the task.

Parents are encouraged to wait at least 15 seconds before repeating a command or physically initiating a task.

Any time a task is scored "parent twice" the problem behavior "not minding" is also scored.

A task is scored "no one":
(a) if the task is completed by neither the parent nor the child
(b) if the task is completed at another time of the day, such as picking up toys or making the bed in the afternoon.

During the study, the experimenter also writes in when the parents report that the task is not necessary, for example picking up toys when the child plays outdoors all day.
A task is completed with "no supervision":
(a) if the parent leaves the room while the child completes the task
(b) if the child leaves the parent to go do the task

A task is completed with "no assistance":
(a) if the parent is present in the room but does not say or do anything to help the child complete the task

A task is completed with "verbal assistance":
(a) if the parent told the child something which would assist in completing the task

A task is completed with "remind to complete":
(a) if the child leaves the task to do something else and the parent must verbally or physically get the child to complete the task

A task is completed with "physical assistance":
(a) if the child was trying to complete a task and the parent gives some physical assistance

A task is scored as "parent does task":
(a) if the child is making no attempts to complete the task and the parent does the task
Appendix J

Problem Behaviors
### Problem Behaviors

#### APPENDIX G

**ORI SOCIAL LEARNING PROJECT**

**Parent Daily Report (PDR)**

<table>
<thead>
<tr>
<th>Family Name</th>
<th>Number</th>
<th>Date</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child's Name</td>
<td>Respondent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Inquire if any behavior problems occurred since you last called.

Prompt parent by reading the list of problems selected by parent in the Intake Interview, mentioning certain specific problems if need to prompt further.

Asterisk (*) those problems selected during the intake interview.

<table>
<thead>
<tr>
<th>Home</th>
<th>School</th>
<th>Community</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressiveness</td>
<td>Noisiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arguing</td>
<td>Noncomplying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedwetting</td>
<td>Not eating (at meal time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Pants wetting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complaining</td>
<td>Pouting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crying</td>
<td>Running around</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defiance</td>
<td>Running away (wandering)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destructiveness</td>
<td>Sadness/unhappiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fearfulness (unreasonable)</td>
<td>Soiling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fighting with sibs (Physical only)</td>
<td>Stealing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire-setting</td>
<td>Talking back to mother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hitting others</td>
<td>Teasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperactiveness</td>
<td>Temper tantrums</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td>Whining</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lying</td>
<td>Yelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negativism</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Patterson, Reid, Jones, and Conger, 1975, p. 161. Used with permission. See also Appendix H.

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Appendix K

Family Events List
Family Events List

Appendix 4.1
OSLC Family Crisis List

<table>
<thead>
<tr>
<th>Date</th>
<th>Case Name</th>
<th>Case Number</th>
<th>Therapist</th>
</tr>
</thead>
</table>

When you fill this out, just circle whichever of these crises came up in the last seven days. We will ask you to do this once a month.

Family
1. Someone moved in with the family for a day or more.
2. Someone that was living with the family for a month or more left (not a parent).
3. One of the parents left town temporarily (more than one day).
4. One of the children left town overnight or longer.
5. Someone returned from a long trip (over a day).
6. Argument with spouse.
7. Argument with child.
8. Adult came home from work very upset.
9. Child came home from play, work, school, etc., very upset.
11. Conflict with local relative.
13. Pleasant long-distance call from relative.
14. Received bad news about a family member.
15. Physical fighting with family member.
16. Wife is pregnant.
17. Pregnancy suspected.
18. Birth of a child.
19. Other ____________________________

Household and Transportation
1. Paid the bills.
2. Didn't have enough money to pay the bills.
3. A major repair was necessary for household or household item.
4. Check bounced.
5. Got a new babysitter.
7. Didn't have any clean clothes.
8. Meal burned or ruined.
9. Got evicted.
10. Moved.
11. Pet picked up by dogcatcher.
13. Sentimental, useful, or valuable item lost.
14. Automobile accident, no one injured.
15. Automobile accident, someone injured.
16. The car needs repairs.
17. The car broke down or wouldn't start.
18. Caught in a traffic jam.
20. Other ____________________________

Economic
1. Lost some money.
2. Received unexpected bill.
3. Went to apply for welfare or unemployment funds.
4. Welfare or unemployment payments began.
5. Welfare or unemployment stopped payment.
6. Something stolen from the house.
7. Something stolen from family member.
8. Other ____________________________

Health
1. Family member had a routine visit to doctor or dentist.
2. Family member saw psychiatrist, psychologist, counselor or other (list ____________________________
3. Someone in the family is ill.
4. Sickness lasted more than three days.
5. More than one person in the family is ill.
6. Severe injury to a family member, e.g., broken leg, pneumonia.
7. Someone in the family learned they have a chronic illness, e.g., cancer, TB, muscular dystrophy, etc.
8. Someone in the family, a relative, died.
9. Other ____________________________
School
1. Child started new school.
2. School called to complain about child's behavior.
3. Child was sent home from school for behavior.
4. Child was suspended from school.
5. School complained about child's academic progress (doing poorly).
6. School called to say child may fail one or more subjects.
7. School called to say child may have to repeat grade.
9. Other

Social interchange
1. Adults had a serious disagreement with a neighbor or friend.
2. Child had a serious disagreement with a neighbor or friend.
3. Friend of a family member is having serious problems—called or came by to talk.
4. Family member had an argument with repair man, business person, government official, etc.
5. Other

Legal
1. Someone in the family went to see a lawyer.
2. Someone in the family had a traffic violation and got a ticket.
3. Family member was arrested.
4. Policeman came to the door.
5. Somebody accused a family member of a crime.
6. Family member appeared in court.
7. Other

Adapted from Patterson, 1975, pp. 314 and 315. Used with permission.
Appendix L

Stanford Preschool Internal-External Scale
TABLE 1
ITEMS IN SPIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Proportion of internal answers</th>
<th>Item</th>
<th>Proportion of internal answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When you are happy, are you happy</td>
<td>.574</td>
<td>8. When you are sad and unhappy, are you sad and unhappy</td>
<td>.173</td>
</tr>
<tr>
<td>I+ a. because you did something fun, or</td>
<td></td>
<td>I- a. because you did something sad, or</td>
<td></td>
</tr>
<tr>
<td>b. because somebody was nice to you?</td>
<td>.569</td>
<td>b. because somebody wasn’t very nice to you?</td>
<td></td>
</tr>
<tr>
<td>2. When somebody tells you that you are good, is that</td>
<td></td>
<td>9. When you play a game and lose, do you lose</td>
<td>.261</td>
</tr>
<tr>
<td>I+ a. because you really have been good, or</td>
<td></td>
<td>I- a. because you just didn’t play well, or</td>
<td></td>
</tr>
<tr>
<td>b. because he is a nice person?</td>
<td>.493</td>
<td>b. because the game was hard?</td>
<td></td>
</tr>
<tr>
<td>3. Do you think I brought you to the surprise room (the experimental room)</td>
<td></td>
<td>10. When somebody stops playing with you, is that</td>
<td>.323</td>
</tr>
<tr>
<td>I+ a. because you have been good today, or</td>
<td></td>
<td>I- a. because he doesn’t like the way you play, or</td>
<td></td>
</tr>
<tr>
<td>b. because I’m just a nice man (lady)?</td>
<td>.436</td>
<td>b. because he is tired?</td>
<td></td>
</tr>
<tr>
<td>4. When your mother gives you a cookie, is that</td>
<td></td>
<td>11. When you get a hole in your pants, is that</td>
<td>.308</td>
</tr>
<tr>
<td>I+ a. because you need a cookie, or</td>
<td></td>
<td>I- a. because you tore them, or</td>
<td></td>
</tr>
<tr>
<td>b. because she has too many cookies?</td>
<td>.644</td>
<td>b. because they wore out?</td>
<td></td>
</tr>
<tr>
<td>5. When somebody brings you a present, is that</td>
<td></td>
<td>12. If you had a pet turtle and he ran away, do you think that would be</td>
<td>.137</td>
</tr>
<tr>
<td>I+ a. because you are a good girl (boy), or</td>
<td></td>
<td>I- a. because you did something to make him leave, or</td>
<td></td>
</tr>
<tr>
<td>b. because they like to give people presents?</td>
<td>.569</td>
<td>b. because there was a hole in his cage?</td>
<td></td>
</tr>
<tr>
<td>6. When you draw a whole picture without breaking your crayon, is that</td>
<td></td>
<td>13. When you are drawing a picture and your crayon breaks, is that</td>
<td>.493</td>
</tr>
<tr>
<td>I+ a. because you were very careful, or</td>
<td></td>
<td>I- a. because you pushed too hard, or</td>
<td></td>
</tr>
<tr>
<td>b. because it was a good crayon?</td>
<td>.460</td>
<td>b. because it was a bad crayon?</td>
<td></td>
</tr>
<tr>
<td>7. If you had a shiny new penny and lost it, would that be</td>
<td></td>
<td>14. When you can’t find one of your toys, is that</td>
<td>.578</td>
</tr>
<tr>
<td>I- a. because you dropped it, or</td>
<td></td>
<td>I- a. because you lost it, or</td>
<td></td>
</tr>
<tr>
<td>b. because there was a hole in your pocket?</td>
<td></td>
<td>b. because somebody took it?</td>
<td></td>
</tr>
</tbody>
</table>

*Note. SPIES = Stanford Preschool Internal-External Scale. I+ indicates a positive item; I- indicates a negative item. In administration, the order of each alternative answer is varied randomly (see text).*

Adapted from Mischel, Zeiss, and Zeiss, 1974, p. 268. Used with permission.
Appendix M

Administration Procedure for the Stanford Preschool Internal-External Scale
Administration of the Stanford Preschool Internal-External Scale

"The SPIES [Stanford Preschool Internal-External Scale] consists of 14 forced choice questions. Each question stem describes either a positive or a negative event that could plausibly occur in a child's life. This stem is followed by two alternative answers: One alternative states that the event occurred because of external persons or circumstances and the other states that the event occurred because of the child's own activity or desires.

"Table 1 [see Appendix L] contains the questions for the SPIES. Positive items are indicated by a plus sign, and negative items by a minus, following the I. A child's I+ score is the total number of positive questions answered with the internal alternative. His total I score is the sum of the I+ and I- scores. Thus, the maximum possible I+ score is 6, the maximum possible I- score is 8, and the maximum possible total I score is 14.

"The SPIES was administered orally to each child in individual testing sessions. Each question was briefly introduced; for example, the tester might say for Question 1, "Are you happy sometimes?" or for Question 9,
"Do you play games sometimes?" The purpose of this procedure was to involve the subject and to make the situation more vivid. Following the presentation of the question stem and the two alternative answers, the alternatives were repeated in reverse order. Thus, the first question would be presented to a subject as follows: "When you are happy, are you happy because you did something fun or because somebody was nice to you, because somebody was nice to you or because you did something fun?" The tester explained to the child that the two answers to each question would be repeated and that he was not to answer until the whole question had been stated fully. The tester emphasized that the child may give whichever answer he wanted.

"To accustom the children to the procedure and to the form of the questions, three training questions were asked at the very start: (a) "Is your name David or Steve [the correct answer], Steve or David?" (b) "Are you a girl or a boy, a boy or a girl?" (c) "Am I [the tester] a lady or a man, a man or a lady?"

"Each of these questions had two alternative answers and they were repeated in reverse order. Thus, the child had to wait until both alternatives were repeated and until the experimenter had finished before responding. The child always had to answer with the content of his chosen alternative, rather than with a yes or no.
"During pretesting, the children tended to answer with the last stated alternative; consequently, the training questions were presented so that the correct alternative (and hence the one that the child invariably selected) was not presented last. Another control for this tendency to answer with the last mentioned alternative was built into the presentation of the SPIES itself by randomly varying the order of the alternative answers for each question so that seven internal and seven external answers were presented last to each subject. Questions were also presented in random order with positive and negative questions intermixed" (Mischel, Zeiss, & Zeiss, 1974, pp. 268-269).
Appendix N

Sample "My good morning list!" Poster
# My good morning list!

<table>
<thead>
<tr>
<th>Tasks</th>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take off</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pick out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get dressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make bed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pick up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brush teeth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb hair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 0
Positive Self-Instructions
Positive Self-Instructions

The parents also taught their children to use positive audible self-instructions while completing the self-care skills. The self-instructions were written on a slip of paper attached to the "My good morning!" list poster so the parents could easily refer to it. What the parents were to say to their child to encourage self-instructions was modeled by the program coordinator several times during the home visit before implementation and when calls were made to obtain data. The parents were to encourage their child to say each self-instruction enthusiastically.

The self-instructions included: prompting statements, said before beginning a self-care skill; positive self-efficacy statements, said after consulting the poster; positive self-evaluating statements, said while completing the self-care skill; and self-reinforcing statements, said after the self-care skill was completed.

Directions for parents put on posters:
Have your child say the words out loud with enthusiasm!

Before: "Let's see, what can I do next?"
Looking at poster: "I can do that all by myself!"
While working: "It's fun to do things by myself!"
or: "This won't take long, I'm getting better and better!"
After: "Well, I've done a real good job!"
or: "This sure looks like a nice bed (or room) to me!"
or: "My parents will be so proud of me and so am I!"
Appendix P

Human Subjects Institutional Review Board Approval Form
Western Michigan University
Human Subjects Institutional Review Board

DIRECTIONS: Please type or print each response - except signatures. Refer to the Western Michigan University Policy for the Protection of Human Subjects to determine the appropriate level of review.

PRINCIPAL INVESTIGATOR: [Name]
DEPARTMENT: [Department]

Home Phone: ___________ Office Phone: ___________
Home Address: ___________ Office Address: ___________

PROJECT TITLE: [Title]

SUBMISSION DATE: 2-24-87
PROPOSED PROJECT DATES: 3-1-87 TO 5-1-87

Note: The principal investigator should not initiate the research project until the protocol has been reviewed and approved by the Human Subjects Institutional Review Board.

APPLICATION IS: [New] [Renewal] [Continuation] [Supplement]

SOURCE OF FUNDING: (if applicable)

Signature of Investigator: __________________________

STUDENT RESEARCH (Fill out if applicable.)

Name of Student: __________________________ Phone: ___________
Address: ___________

The research is: [Undergraduate Level] [Graduate Level]
Faculty Advisor: __________________________ Department: __________________________
Signature of Faculty Advisor: __________________________ Phone: ___________

VULNERABLE SUBJECT INVOLVEMENT (Fill out if applicable.)

Research involves subjects who are: (check as many as apply)
1. [x] children
   - approximate age: ___________
2. ___________ mentally retarded persons
   - check if institutionalized
3. ___________ mental health patients
   - check if institutionalized
4. ___________ prisoners
5. [ ] pregnant women

(Describe Please)

[Protocol #] 97-03-07
Received: 2/24/87

[Signature of Investigator]
LEVEL OF REVIEW: Please indicate here if you think that the research project is exempt from review, subject to expedited review, or subject to full review.

___ Exempt (Forward ___ application to IRB Chair)
Which category of exemption applies? ___

___ Expedited (Forward ___ applications to IRB Chair)

___ Subject to full IRB review (Forward ___ applications to IRB Chair)

Comments:

Your application was reviewed and the Human Subject Institutional Review Board (HSIRB) has determined that:

1. The proposed activities, subject to any conditions and/or restrictions indicated in Remarks below, have (a) provided adequate safeguards to protect the rights and welfare of human subjects involved, (b) established appropriate procedures and/or documents to obtain informed consent, and (c) demonstrated that the potential benefits of the research substantially outweigh the risks.

2. The proposed activities, for reasons indicated in Remarks below do not provide adequate protection for the rights and welfare of the human subjects.

At its meeting on ______________, the HSIRB approved (provisionally approved... see remarks) this application with regard to the treatment of human subjects. The HSIRB categorized this application as:

1. Involving subjects at no more than minimal risk.

2. Involving subjects at more than minimal risk.

REMARKS:

[Handwritten notes]

[Signature HSIRB Chair  3/4/87]
TO: Dalene D. Vanden Hoek
    Malcolm Robertson
FROM: Ellen Page-Robin, Chair
RE: Research Protocol #87-03-07
DATE: March 11, 1987

This letter will serve as confirmation that your research protocol, "Rule-Governed Behavior in Pre-school Children: Self-Management of Self-Care Skills," has been approved by the HSIRB with the understanding that the following changes be made to the consent form:

1. Add phrase ensuring the confidentiality of the child's identity.

2. Add a statement regarding the procedure should child abuse, or any other threatening or potentially threatening situation is made evident during the course of the study.

Please send a copy of the revised informed consent.
If you have any questions, please contact me at 383-4917.

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