Errorless Remediation in the Classroom: Success-based Intervention for Children with Antisocial Behaviour

By

Carolyn Di Adamo

A thesis submitted in conformity with the requirements for the degree of Master of Arts
Department of Human Development and Applied Psychology
Ontario Institute for Studies in Education of the University of Toronto

© Copyright by Carolyn Di Adamo 2000
The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author’s permission.

L’auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L’auteur conserve la propriété du droit d’auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-53467-7
Errorless Remediation in the Classroom: Success-based Intervention for Children with Oppositional Behaviour

Carolyn Di Adamo
Master of Arts, 2000
Human Development and Applied Psychology
Ontario Institute for Studies in Education of the University of Toronto

Abstract

Many techniques that are commonly employed by teachers to manage students' behaviour in the classroom focus on the teacher's immediate reaction (e.g., removal from the classroom) to student problem behaviour. Research suggests that these strategies often are ineffective and may reinforce the unwanted behaviour. Errorless compliance training was developed to provide a more proactive alternative to reducing child problem behaviours and has been validated as an effective approach when employed in the home with parents and their children (Ducharme & Popynick, 1993). In the present study, we investigated the utility of the errorless approach in the classroom. An intervention agent (the Master's candidate graduate student), implemented the procedure in the classroom with two 5 year old girls, who were exhibiting severe levels of noncompliance. In addition, we investigated generalization of treatment effects to the classroom teacher. Observations indicated substantial increases in compliance to requests issued by the intervention agent at completion of treatment, as well as preliminary indications of generalized compliance to the classroom teacher. These findings suggest that errorless compliance training may provide a non-reactive and success-based alternative to traditional classroom management procedures.
Acknowledgments

I wish to express my gratitude to the supervisor of this thesis, Dr. Joe Ducharme. His commitment to providing me with support and guidance allowed me to successfully complete the project. I would also like to thank Mirella Pugliese, who spent many hours in the classroom with me.

My most sincere appreciation is also extended to the staff and students of the school where this project was carried out. Indeed, this project would not have been possible without their cooperation.
Table of Contents

Abstract ......................................................................................................................... ii
Acknowledgments ........................................................................................................ iii
Table of Contents ........................................................................................................ iv
List of Figures ............................................................................................................... v
List of Appendices ......................................................................................................... vi
Introduction .................................................................................................................. 1
   Antisocial Behaviour in the Schools ................................................................. 1
   Classroom Management of Challenging Behaviours ...................................... 2
   Compliance as a Keystone Behaviour ............................................................. 6
Traditional Approaches to Treatment of Child Antisocial Behaviour .............. 6
   Importance of Timeout to Treatment Efficacy .............................................. 9
   Errorless Compliance Training ........................................................................ 11
Potential Benefits of Errorless Compliance Training
   In the Classroom .................................................................................................. 12
   The Present Study ............................................................................................... 14
Method ....................................................................................................................... 16
   Participants and Setting ..................................................................................... 16
   Intervention Agent and Interobserver Agreement ...................................... 16
   Design ............................................................................................................... 17
   Procedure ........................................................................................................... 18
Results ....................................................................................................................... 26
   Assessment of Compliance Probabilities ..................................................... 26
List of Figures

Figure 1.
Percentage of compliance to requests from the four probability levels graphed separately across sessions in the empirical probability analysis................. 27

Figure 2.
Percentage of requests followed by compliance across children during pretreatment and treatment phases........ 29
List of Appendices

Appendix A. Consent documents for parents and school personnel .................................................45

Appendix B. School Compliance Probability Questionnaire ..............52

Appendix C. Requests selected for each Child ........................................... 58
Introduction

Antisocial Behaviour in the Schools

Antisocial child behaviour, including aggression and noncompliance, has been increasing in intensity and prevalence over the past few years and is becoming a common manifestation in and out of the classroom (Sprague, Sugai, & Walker, 1998). Kazdin (1993) suggests that 9% of children are at serious risk for antisocial behaviour disorders. Oppositional and non-compliant behaviours are among the most frequently reported problems of children referred to clinics (Rey, 1993) and are common even in preschool clinic referrals (Offord, Boyle, & Racine, 1991).

Such problems are particularly difficult to manage in the school system, due to the typically large number of children under the care of the teacher, and the learning objectives that must be accomplished with each student. Teachers often are required to manage acts of fighting and aggression towards peers, defiance of authority, lying, noncompliance and other forms of disruptive classroom behaviour (Sprague et al., 1998; Kazdin, 1997).

Within the school system, Kauffman (1993) indicates that the number of students identified with antisocial behaviour is approximately 8%. This high prevalence is disturbing, given that such children are at high risk for future negative outcomes, such as school dropout, alcoholism and antisocial personality (Webster-Stratton & Hancock, 1998).

Many teachers, especially those new to the profession, indicate that discipline and classroom management are their primary concerns (Veenman, 1984; Campbell, 1999). In fact, 73.6% and 63.3% of a sample of teachers rated off-task behaviour and disobedience, respectively, as very frequent occurrences over the course of a typical
school day (Bibou-Nakou et al., 2000), and most further indicated that these
behaviours constituted their most difficult daily problems. According to some
researchers, child compliance is the behaviour most desired of their students by
elementary school teachers (Hersh and Walker, 1981, as cited by Strain et al., 1983)
and disobedience is one of their most significant sources of distress (Campbell, 1999).
Child problem behaviours may impede both the teacher’s ability to teach effectively
and the children’s learning (Jones, Charlton, & Witkin, 1995).

Classroom Management of Challenging Behaviour

Competent classroom management skills are essential for managing the above
described problems and for providing a foundation for effective instruction (Evertson,
Anderson, Anderson, & Brophy, 1980; Evertson, 1997). Such skills include creating
and conveying procedural and academic expectations or rules, systematically
sequencing, pacing, and monitoring student academic work, as well as monitoring
and providing feedback not only for academic work, but also for student behaviour
(Evertson & Emmer, 1982). In addition, studies have supported the practice of
establishing management systems at the outset of the school year. In classrooms
where this occurred, the students exhibited less inappropriate behaviour, greater task
engagement and higher academic success (Evertson, 1989). Unfortunately, these
skills are often not a major part of the curriculum for teacher training (Sprague et al.,
1998), or teachers may not receive the supports required to use these skills effectively
after receiving training in their use (Gunter & Denny, 1996). Moreover, children
who have not consistently experienced these proactive approaches may develop a
behavioural repertoire that is intractable to all but the most intensive management
attempts. Teachers' inability to cope with such classroom management problems can
lead to teacher burn-out and has been cited as one of the primary motivations for teachers leaving the profession (Pianta, 1999; Bibou-Nakou, 1999).

Some of the most common default strategies used by teachers who have not been trained in the use of proactive approaches can be referred to as 'reactive' in nature. That is, they involve an immediate verbal or physical reaction by the teacher to the problem response in an attempt to control the behaviour and reduce its future probability (Evertson & Harris, 1992). Some such techniques include removing the child from the classroom activity by sending him or her to the corner, out in the hall, or to the principal’s office. Additionally, the teacher may yell, make threats or deny the child preferred activities, such as recess or gym. Recent surveys suggest that reprimanding loudly in class for inappropriate social behaviour and moving the child’s desk into the corner or the hall are still very commonly used approaches for classroom management (Rosen, Taylor, O’Leary, & Sanderson, 1990).

There are several contraindications to the use of reactive approaches in the classroom. First, there is limited evidence supporting the efficacy of such approaches, especially those that involve increased negative attention from the teacher following the problem behavior or removal of the child from ongoing classroom tasks.

When examined from the perspective of operant theory (Skinner, 1953), teacher attention has, for many students, been demonstrated to be a positive reinforcer, serving to increase the future frequency of the behaviour that it follows (Martin & Pear, 1999). Thus, teacher attention has the potential to increase the frequency of both behaviours that the teacher desires of students, such as work completion, and undesirable behaviours, such as talking out and disobedience to teacher instructions (Sprague et al., 1998; Strain et al, 1983). When a student
misbehaves and the teacher consistently responds with a loud reprimand or other form of negative attention, systematic observational analysis often reveals that the problem behaviour is actually more likely to recur, because of the reinforcing nature of the teacher's response pattern (e.g., Wahler, 1976). Inasmuch as children with behavioural disorders, by definition, do not exhibit a high frequency of prosocial behaviour and therefore receive much less positive attention or commendation for desirable responses than typical children (Barkley, 1997; Patterson, 1982), they may exhibit problem behaviour to gain access to other forms of teacher attention, including scoldings, reprimands, and angry exhortations.

Additionally, certain reactive approaches involve the immediate removal of the child from the ongoing activities of the classroom, such as when the child is sent to the principal's office or to a timeout area in the classroom or school after a problem response. Although this approach sometimes serves a punishment function (i.e., the problem behaviour is less likely to recur when child removal is consistently executed), there is potential for such intended punishers to serve a negative reinforcement function (Martin & Pear, 1999) for the undesirable behaviour, increasing the future frequency of the behaviour.

When the child's undesirable behaviour is consistently followed by a consequence that terminates an unpleasant state for the child, the consequence is referred to as a negative reinforcer and the behaviour it follows is likely to be exhibited with greater frequency (Patterson, 1976, 1989). Oftentimes, children learn that problem responses will allow them to escape or avoid classroom circumstances that they find unpleasant (Iwata, 1987). For example, when the child is sent out of the classroom after a disruptive or aggressive response, the child is no longer required to
participate in current classroom activities, which might involve attending to the teacher’s lesson, performing seatwork, or reading silently. If these classroom activities are aversive to the child (e.g., the child finds them too difficult or has difficulty attending), the teacher’s response of removing the child may actually serve to terminate the unpleasant circumstances for the child. Because being removed from the classroom activity actually results in more pleasant circumstances for the child (sitting in the hall), the child may be more likely to reproduce the problem behaviour when faced with similar classroom activities in the future (Carr, Newsom, & Binkoff, 1980).

Clearly, when teachers use certain reactive approaches, they may unintentionally increase the frequency of child behaviours that they were attempting to control. Information on the principles of positive and negative reinforcement would provide teachers with knowledge regarding the inadvisability of using certain approaches in many classroom circumstances in which teacher reactivity is almost instinctive.

A second contraindication for reactive approaches to behaviour management involves the fact that they are not preventive in nature. With reactive approaches, the teacher often spends a disproportionate amount of time focusing on child problem behaviours rather than arranging the environment and teacher-child interactions to decrease the likelihood of future antisocial child responses. In contrast, classroom management approaches that emphasize encouragement and reinforcement of child prosocial behaviour are more likely to have the desired effect of increasing the frequency of these behaviours in the classroom and thereby reducing the probability of more aberrant child responses (Sprague et al., 1998).
Compliance as a Keystone Behaviour

Researchers have noted that noncompliance underlies most forms of externalizing, antisocial behaviour (Barkley, 1997; Frick, Van Horn, Lahey, Christ, Loeber, Hart, Tannenbaum, & Hanson, 1993). Most problem behaviours, including lying, stealing, swearing, destroying property, failing to complete homework, and fighting can be viewed as forms of noncompliance to the rules or requests of parents or other authority figures (Patterson, 1982). In fact, compliance has been referred to as a “keystone” behaviour; increases in child compliance are typically associated with broad behavioural improvements (Loeber & Schmaling, 1985). Several studies have demonstrated that the frequency of other maladaptive behaviours decreases when children are taught to comply to parental requests (Cataldo, Ward, Russo, Riordan, & Bennet, 1986; Ducharme & Popynick, 1993; Ducharme et al, 1994).

In the classroom, teachers’ instructions are an integral and pervasive part of most, if not all, activity (Atwater & Morris, 1988) and must be met with compliance for the classroom to operate successfully. Children who cooperate with teacher requests typically do not present classroom management difficulties. In contrast, virtually all antisocial classroom behaviour can be viewed as a form of child noncompliance to teacher instructions or classroom rules. Thus, classroom intervention that involves strategies for encouraging child compliance may provide the most direct means to successful management of school behaviour problems.

Traditional Approaches to Treatment of Child Antisocial Behaviour

Because of the keystone nature of compliance, many programs developed for the treatment of antisocial behaviour include compliance training as one of their primary components (Barkley, 1997; Forehand & McMahon, 1981, Webster-Stratton...
These approaches generally consist of teaching the parent or teacher to deliver effective requests, to reward and praise the child when compliance occurs, and to implement a decelerative consequence for noncompliance. The most common consequence used for noncompliance in these programs is timeout, which involves removing the child from the current situation to a non-reinforcing environment for a short period of time. Commonly recommended and generally well-researched programs include those of Forehand (1981), Barkley (1997), Webster-Stratton (1988), and Eyberg (1998).

Forehand and his colleagues have conducted a wide range of studies demonstrating the effectiveness of compliance training. The Forehand program includes training of five essential skills for modification of child behaviour, including provision of attention, delivery of rewards, ignoring, issuing commands and implementing time-out (Forehand & McMahon, 1981). In Phase I of their treatment protocol, parents are taught to provide attention contingent on desirable child behaviour. In addition, they are taught to ignore minor problem behaviours. In Phase II, parents learn effective command use and timeout implementation. Parents are taught to provide immediate praise when the child complies after request delivery. When the child does not begin to comply within 5 seconds, the parent is taught to issue a warning that time-out will follow noncompliance. If, after another 5 seconds, the child still has not complied, the parent is taught to place the child on a chair in the corner for 3 minutes (Forehand & McMahon, 1981).

Barkley’s (1997) compliance training program utilizes many of the principles and procedures of Forehand’s program. For example, Barkley emphasizes the importance of providing immediate, consistent and specific consequences for
behaviour, both positive and negative. He also stresses that positive reinforcement for prosocial behaviour should be well established so children are ensured reinforcement without misbehaving. The Barkley program involves the establishment of reward systems (points and tokens), in addition to social reinforcement, for compliance. Parents are taught two methods of punishment for misbehaviour; response cost, which is the removal of points or tokens, and time-out (Barkley, 1997), as employed in the Forehand program.

Webster-Stratton (1982, 1998) developed a 12 week parent-training program that employs videotapes to model the skills taught to parents. These skills include providing effective praise, developing incentive programs for use with children who are not rewarded sufficiently by social praise and ignoring inappropriate behaviours to avoid reinforcing them. Although Webster-Stratton does not recommend violent techniques, such as spanking, negative consequences for child problem behaviour that is too severe to ignore are an integral part of the program. As in the above-described compliance training programs, time-out is the primary negative consequence taught to parents (Webster-Stratton & Hancock, 1998). This program has been found to improve parental attitudes and parent-child interactions, as well as to reduce the parents’ use of violent discipline and punishment (Webster-Stratton, 1984, 1989).

Compliance training has also been addressed in a program developed by Eyberg (1988) called Parent Child Interaction Therapy. This approach assumes that problem behaviour is established and maintained through maladaptive interaction patterns between parent and child. By altering this pattern of interaction, the parent can create a mutually rewarding context that will reduce problem behaviour (Eyberg & Boggs, 1998). The intervention consists of two phases, conducted within natural
play situations between the parent and child. Phase 1 is Child Directed Interaction, in which the parent is taught to follow the lead of the child, and to provide warmth, attention and praise. Additionally, ignoring skills are taught for application following undesirable behaviours (Eyberg & Boggs, 1998). In Phase 2, Parent Directed Interaction, effective request delivery is taught, as well as use of positive and negative consequences for obedience and disobedience, respectively (Eyberg & Boggs, 1998). The negative consequence that parents are taught to apply when the child disobeys a request or command is timeout, as in the other programs described.

**Importance of Timeout to Treatment Efficacy**

The reason for the inclusion of timeout as a component of all of the above treatment programs is its demonstrated efficacy for reduction of problem behaviour in a wide range of studies (Parrish et al., 1986; Clark, Rowbury, Baer, & Baer, 1973; Yeager & McLaughlin, 1995). In fact, Eyberg indicates that a negative consequence such as timeout must be issued following every noncompliant response. She reasons that ignoring noncompliance teaches the child that they can get out of doing what they do not want to do by simply refusing (Eyberg & Boggs, 1998). Thus, timeout is viewed by many as an essential and necessary component in the reduction of noncompliance.

Although timeout is one of the most rigorously evaluated approaches for treatment of child externalizing behaviour, its use can become problematic when the child refuses to comply with implementation of the procedure, a situation that is not uncommon with oppositional children (Roberts, 1982; 1984). Such resistance is actually anticipated in many of the above programs and additional procedures and consequences typically are included to deal with this problem.
For example, Barkley (1997) describes physically forcing the child to the chair, putting the child in his or her room, or extending the length of the time-out if the child refuses to cooperate with implementation of the consequence. Forehand & McMahon (1981) instruct parents to warn the child the first time he or she leaves the timeout chair, by saying, "If you get off the chair again, I will spank you." They then describe how to spank the child if further resistance occurs. Eyberg also describes procedures to follow if the child leaves the timeout chair. These include a spank, holding the child in the chair and leading the child to his or her room (Eyberg & Boggs).

Clearly, child resistance to parent implemented consequences can lead to an escalation and intensification of child constraint and punishment in most compliance training programs. With such procedures, there is potential for the situation to escalate into a serious confrontation, with coercive and physically violent interaction between the parent and child.

Additionally, the earlier described issues with negative reinforcement are relevant to the use of timeout. As noted above, children sometimes engage in problem behaviours in an effort to terminate unpleasant circumstances. When timeout is used as a consequence for such behaviours, the timeout consequence may allow the child to effectively delay or avoid engagement in these undesired tasks. Thus, the problem behaviours would be negatively reinforced and increase in future frequency. Clearly timeout has the potential to serve as opposite to its intended function (Ducharme, 1994).
Errorless Compliance Training

Errorless compliance training (Ducharme & Popynick, 1993; Ducharme, 1996) was developed as an alternative to the use of more reactive and punitive approaches to child behaviour management. With this approach, child oppositional behaviour can be managed proactively, without the use of timeout or other decelerative consequences (Ducharme, 1996; Ducharme & Popynick, 1993; Ducharme et al., 1994; Ducharme et al., 1996). The approach derives from research on errorless discrimination training approaches (Touchette, 1968; Touchette & Howard, 1984). In an errorless teaching paradigm, discriminations presented to the learner are initially made simple, typically through the use of prompts. More difficult tasks are gradually introduced (i.e., prompts are gradually faded) at a slow enough pace to prevent response errors. Eventually even the most difficult tasks can be introduced with few learner errors. Thus, the learner experiences much more success in learning discriminations than one would typically encounter during more traditional trial and error learning procedures.

In the case of errorless compliance training, noncompliant responses are treated like "errors" (Ducharme & Popynick, 1993). Such errors are minimized at the beginning of treatment through the delivery of requests by the parent that are easy for the child to follow and are associated with high rates of compliance. Very gradually, requests that have been empirically determined to be more difficult for the child are introduced. Because of the gradual introduction, noncompliant responses are minimized throughout treatment, thereby obviating the need for a punitive consequence for oppositional behaviour
The "errorless" compliance training method begins with an observational assessment or analysis of compliance probabilities to determine child compliance rates to a broad range of typical parental requests. Once compliance rates are determined, the requests are ordered in a hierarchy based on probability of compliance and divided into four request categories, from level 1 (high probability of compliance), to level 4 (low probability of compliance). Treatment begins with parent delivery of requests from level 1 (assessed as yielding approximately 75% to 100% child compliance during the empirical analysis of compliance probabilities). Because of the high rate of child compliance to these requests, the parent is able to provide intensive and enthusiastic praise and warmth contingent on the frequent child prosocial responses.

Lower request levels (levels 2, 3 and 4) are subsequently introduced gradually until the child demonstrates increased compliance to all levels, including level 4, those requests previously associated with the lowest levels of compliance. Throughout this process, the few incidents of noncompliance that do occur are simply ignored by the parent, to ensure that they do not result in reinforcing forms of negative attention, as described above. Thus the approach results in substantial improvements in child compliance without the need for parents to use the physical coercion that is often inherent in the use of punitive consequences.

Potential Benefits of Errorless Compliance Training in the Classroom

The errorless approach has been demonstrated effective in producing substantial improvements in child compliance to parental requests in the home. The results have been replicated with a range of children with behavioural disorders, including children at risk for maltreatment (Ducharme, Atkinson, & Poulton, 2000).
and children with developmental disabilities (Ducharme et al., 1996). The effectiveness of the approach has not yet been evaluated in the classroom, however, where child noncompliance can have serious detrimental effects on classroom management. There are many advantages to the errorless approach over more traditional compliance training strategies that suggest potential for remediation of classroom noncompliance.

First, the approach is success-oriented and focuses on increasing compliance through positive actions. Errorless compliance training involves arranging circumstances that increase the probability of child prosocial behaviour. This increase provides frequent opportunities for delivery of praise, warmth and responsiveness to the child following desired child responses. A recent study suggested that the approach may ameliorate internalizing as well as externalizing symptoms (Ducharme et al., 2000). In light of the fact that the approach ensures that children receive high levels of praise and experience success frequently, they may benefit in the area of improved self-esteem, a common area of need in children with behavioural disorders (Patterson & Capaldi, 1990). Enhanced self-esteem would be particularly advantageous in the classroom, where students require confidence to initiate and persevere with educational activities.

A second benefit of errorless compliance training is the reduced need for the assertion of power by careproviders. The absence of negative consequences eliminates the potential for escalating confrontations between the child and the parent/teacher, which could produce deleterious long-term effects (Webster-Stratton & Hancock, 1998). Such conflict could be particularly detrimental in the classroom, where classroom functioning and child learning could be disrupted. Moreover, the
forceful imposition of punitive consequences by teachers could be distressing to other students and provide them with a coercive model for managing the non-cooperation of others.

Finally, Errorless compliance training is a relatively simple strategy involving a circumscribed range of skills that parents can implement in their homes with ease (Ducharme et al., 1994). Simplicity and practicality are important characteristics of any treatment approach introduced in the classroom, as teachers, in general, juggle a large workload and have very little additional time to devote to implementation of intervention procedures.

The Present Study

In the present study, we examined the use of errorless compliance training in the classroom. The intervention was conducted with two children with Down’s Syndrome who were enrolled in the same classroom. They had been referred to a treatment project conducted by the thesis supervisor due to severe classroom noncompliance.

Given that this was the first classroom evaluation of the errorless approach and that the classroom teachers indicated that they would be unable to implement the intervention methodically due to their workload, the intervention was carried out by the Master’s candidate graduate student. Under these circumstances, we could ensure procedural integrity of errorless compliance training and preclude failure of the procedure due to teacher non-adherence. The graduate student therefore assumed a role similar to an educational assistant or special needs worker and worked directly with the children to conduct all aspects of the intervention. We used this situation as an opportunity to assess generalization of compliance gains from the graduate student
intervention agent to the classroom teacher. Thus, in addition to representing the first
examination of errorless compliance training in the classroom, the study also
provided the first opportunity to assess the generalization effects of errorless
compliance training across careproviders.

We predicted that both children would show substantial gains in compliance
to the requests of the intervention agent after errorless compliance training (i.e., a
mean of over 75% compliance to all requests delivered by the intervention agent in
the final phase of the study). We also predicted that children would demonstrate
similar improvements in their compliance to the teacher during and following the
intervention.
Method

Participants and Setting

Two 5 year old girls diagnosed with Down's Syndrome served as participants. Both children attended an afternoon kindergarten class with eight other students at a school for special needs children. The children were referred for participation in this project by the principal and teachers at the school because they regularly exhibited uncooperative and noncompliant behaviour (see Appendix A for consent material). This behaviour frequently resulted in classroom disruption. The teachers indicated that much time was lost each day with attempts to engage the girls in class activities and instruction; often the teachers resorted to coaxing, negotiating or bargaining in order to gain child cooperation. Rather than participate, the children sat or lay on the floor, refusing to join the group, or played in isolation. The children often responded to teacher requests with swearing and yelling, tantrums, or simply lying on the floor and refusing to move.

There were two co-teachers for the classroom. Sessions were conducted in any part of the school that was relevant to the request being delivered, including the children's classroom, hallways, bathroom, outdoor playground or gymnasium of the school.

Intervention Agents and Interobserver Agreement

The primary classroom intervention agent, who conducted all sessions and served as primary observer, was a graduate student in a Master's degree university program in school and child clinical psychology. She implemented program procedures and recorded occurrence of compliance or noncompliance after request delivery.
To control for potential observer bias, a second observer independently coded 24% of the total data collected (22% of observational probability analysis, 20% of baseline and reversal, and 29% of treatment data). The second observer was a doctoral graduate student in the school and child clinical program. The second observer attended compliance sessions and positioned herself on the opposite side of the classroom from the child to avoid reactivity of the child to her presence. From this position, she was able to hear request delivery and observe the child's response.

An agreement was tallied when both observers independently corresponded in scoring the child's response as compliant or noncompliant. Percent agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. Interobserver agreement on child compliance was 98% across the observational probability analysis phase, 100% across pretreatment reversal phases, and 100% across treatment phases.

In addition to the above personnel, the classroom teacher also delivered requests to the children in multiple probe fashion throughout baseline and treatment phases, to determine potential generalization of treatment effects to regular classroom staff (see Teacher Generalization section, below).

Design

A multiple baseline across subjects design with reversal was used (Barlow and Hersen, 1984). The observational probability analysis, during which the probability of compliance to a range of specific requests was observationally determined, was followed by a low probability request phase (compliance assessment using level 4 requests, as determined during the observational probability analysis). High probability requests (level 1 requests, again, as determined during the observational
probability analysis) were presented in the next phase, followed by a return to a low probability request phase. These alternating pretreatment phases were conducted to confirm that child compliance could be reliably controlled by altering the specific requests delivered and to confirm that low probability requests consistently yielded low levels of compliance, even when preceded by a high probability request phase.

The second low probability request phase was followed by the errorless treatment phase, which involved a graduated fading procedure from high (level 1) through intermediate (levels 2 and 3) to low probability requests (level 4). We hypothesized that by gradually introducing low probability requests, after providing intensive reinforcement for requests that more commonly yielded compliance, we could substantially improve child compliance to these more difficult requests, as in previous studies employing this approach (Ducharme & Popynick, 1993; Ducharme et al., 1994; Ducharme et al., 1996). The two children were run concurrently, with simultaneous initiation of baseline for both children and a time-lagged treatment phase for the second child, to meet multiple-baseline criteria (see below for detailed description of each phase).

Procedure

Dependent Measures

Compliance. Child compliance to intervention agent and teacher requests was the dependent measure. The child was considered compliant if the appropriate motor response to the request was initiated within 10 s of the request, and completed within 40 s. Failure to exhibit a motor response, failure to initiate within 10 s or failure to complete within 40 s, even if the appropriate motor response was eventually exhibited, were considered noncompliance (Ducharme and Popynick, 1993).
Child compliance was coded using event recording. Each event was initiated by a request delivered by the intervention agent or teacher and ended by one of three child response alternatives: (a) successful completion of the requested response within 40 s of the request, (b) failure to complete the requested response within 40 s, or (c) failure to initiate the requested response within 10 s (the first two options were not applicable if the requested response was not initiated within 10 s of the request delivery).

**Teacher Generalization.** Due to the highly demanding needs of the children in the classroom attended by the two participant children, teachers had minimal time to participate in the conduction of the intervention. We therefore decided to implement intervention procedures by means of a surrogate intervention agent, similar to the use of an educational assistant in a special needs classroom. As noted above, the intervention agent delivered requests during all phases of the study, moved through the compliance probability hierarchy with the children, and praised the children for compliant responses during treatment phases. The use of the intervention agent provided the opportunity to assess generalization of potential treatment gains to individuals not directly involved in intervention implementation (i.e., teachers).

In addition to determining whether the intervention agent was able to promote improvements in child compliance, we were interested in assessing whether gains made using the errorless approach with this agent would transfer to the classroom teacher. We therefore assessed compliance to the classroom teacher during pretreatment and treatment as an additional measure of child compliance in the classroom. These probes were conducted in the following manner.
First, the teacher was taught effective request delivery, which included delivering single component requests, issued in the imperative with a firm but polite tone of voice. The teacher was also taught to maintain eye contact and proximity during request delivery. These components were modeled for the teacher and she had the opportunity to practice and to receive feedback on these skills. During the pretreatment phase, the teacher was instructed to deliver the appropriate requests and to respond to child compliance or noncompliance as she normally would (child compliance was observed and recorded by the intervention agent or an independent observer). During the treatment phase, the teacher again delivered the requests, but also was instructed to praise the child after compliance and to ignore noncompliant responses.

Specifically, the teacher was taught to enthusiastically deliver praise immediately following the child’s compliant response. She was instructed to label the cooperative behaviour being praised (i.e., examples of verbal statements that the teacher might use included, “I really like the way you are listening!” and “Thanks for _____ when I asked you to!”). In regards to ignoring child non-compliant responses, the teacher was instructed to avoid providing any reaction to the non-compliance, (e.g., shaking her head, looking stern, reprimanding the child). She also was taught to move on with the regular activity after a non-compliant response and to deliver the next request after approximately 60 seconds.

Assessment of Compliance Probabilities

Questionnaire Assessment. To conduct errorless compliance training, clinicians begin the process of establishing the probability of child compliance to a broad range of requests by asking persons who know the child (typically the parents)
to estimate the probability of child compliance to a broad range of requests. For this purpose, Ducharme developed the Compliance Probability Questionnaire (Ducharme & Pontes, 1993). This form comprises a list of approximately 120 requests on which parents indicate whether the child complies to the request almost always (76 to 100% of the time), usually (51 to 75% of the time), occasionally (26 to 50 % of the time) or rarely (0 to 25 % of the time).

For purposes of the present study, the questionnaire was modified to increase its relevance to the school environment (see Appendix B). Teachers were asked to estimate the probability of child compliance to each request on a list of 112 commonly used classroom requests. Responses on the questionnaire provided a rough indication of how the requests may be categorized for each individual child, but did not contribute directly to the final requests used in treatment. Teacher responses to this questionnaire provided a basis for determining requests to include in the observational probability analysis (see below). The questionnaire sampled requests from several domains, including hygiene (i.e. “Wash your face”), dressing (i.e. “Put on your coat”), play (i.e. “Sing the song”), and academic (i.e. “Open the book”). The teachers rated each request according to the likelihood of compliance by the children after one statement of the request by the teacher. On the questionnaire, teachers could also indicate whether child compliance to the specific request was important to them.

Observational Probability Analysis. To empirically assess the probability of compliance to specific requests, the therapist conducted sessions in which she presented the child with approximately 32 requests selected from the School Compliance Probability Questionnaire completed by the teacher. The list of 32 requests comprised 8 requests from each of the 4 levels of compliance probability, as
rated by the teacher. An individualized list of requests was devised for each child based on the responses of the teacher on the School Compliance Probability Questionnaire, thus each child was presented with a unique set of requests, although there were some common requests (see Appendix C for the requests selected for use in treatment). The selection of requests was limited to those that could be completed by the child in 30 s or less and would not be difficult to deliver in the school environment. As much as possible, requests that the teacher had indicated were important were selected for inclusion.

The intervention agent delivered single component requests, using the imperative with a polite but firm voice, maintaining eye contact and proximity, and avoiding prompts, discussion or repetitions of the requests. In all, 9 sessions were conducted for each child, during which the list of 32 requests was delivered in variable order. Sessions lasted the duration of the afternoon kindergarten program (1:00 to 3:30) or ended after each of the 32 requests were delivered once. As much as possible, requests were delivered at the most natural and appropriate time in relation to the ongoing classroom activity. The intervention agent provided no consequences for compliance or noncompliance during this phase. She simply continued with other classroom activities or delivered the next request on the list, if it fit in with the natural sequence of classroom events.

Hierarchical Categorization of Requests

Based on the results of the observational analysis, the 32 requests were arranged in order of lowest to highest probability of compliance. These requests were then divided into four categories that roughly approximated the compliance probability levels of the questionnaire: level 1 (76% to 100% compliance); level 2
(51% to 75% compliance); level 3 (26% to 50% compliance); and level 4 (0% to 25% compliance). As the ratings on the School Compliance Probability Questionnaire were perceptions or beliefs of the teacher, many requests changed probability levels subsequent to the observational probability analysis. Of the 32 requests used for the observational analysis, 6 from each probability level (24 in total) were chosen for use in subsequent phases (see Appendix C for the requests selected for each child).

Baseline and Reversal Phases

To provide a baseline measure of child compliance to low probability requests and to demonstrate that child compliance could be controlled by alternating the specific requests delivered, we first conducted several sessions in which only low probability (level 4) requests were delivered to the children. The requests delivered were those determined to be low probability (e.g., least likely to yield compliance) in the observational probability analysis. We then followed this phase with several sessions during which only high probability (level 1) requests were used (as determined in the observational probability analysis). Finally, we returned to a phase in which only low probability (level 4) requests were provided.

This reversal was conducted to demonstrate the clear distinction in child compliance in response to the different classes of requests (high and low probability) before treatment. By the end of treatment, we expected to eliminate this variance, by increasing child compliance to all requests delivered, including level 4 requests. The reversal also provided the opportunity to confirm that the children were consistently noncompliant to low probability requests, even after being exposed to a phase in which a high proportion of requests that almost always yielded compliance were
delivered. Moreover, the level 4 request phase that occurred immediately prior to
treatment also served as the baseline measure of child compliance to level 4 requests.

**Treatment – Phase 1 (Level 1 Requests)**

During the first phase of treatment, the intervention agent provided frequent high probability requests to the children during treatment sessions and avoided using requests from subsequent levels. Sessions were conducted 3 to 4 times per week. The style of request presentation was identical to that used during the observational probability analysis. The therapist provided each of the six requests from level 1 three times (18 in total) per session.

She provided enthusiastic praise to the child immediately following each compliant response, as teacher reports indicated that praise was a strong reinforcer for both children. She also provided no response for noncompliance other than to continue with ongoing activities or to proceed with subsequent requests on the list. This procedure was used to prevent reinforcement (e.g., negative attention) from occurring after child noncompliance (Ducharme & Van Houten, 1994). The transition to treatment phase 2 occurred when compliance to level 1 requests was consistently at or above 75%.

Outside of compliance sessions conducted by the intervention agent, no modifications were made to the request delivery practices of the classroom teachers. Thus, we did not attempt to ensure that teachers used requests compatible with the treatment requests for the corresponding phase of treatment.

**Treatment – Phases 2, 3, 4**

Subsequent request levels (levels 2, 3 and 4 requests) were introduced sequentially and gradually, over a period of time (i.e., several weeks) that was
comfortable for the children. In phases 2, 3, and 4, request delivery and consequence procedures for compliance and noncompliance were identical to those used in phase 1. During each phase of treatment, the intervention agent avoided delivering requests from subsequent levels. After the introduction of phase 4, there were no restrictions on request selection; the intervention agent delivered requests from any of the four probability levels.
Results

Assessment of Compliance Probabilities

Questionnaire Assessment

On the School Compliance Probability Questionnaire, the teacher provided her perception of the probability of child compliance for the two children. For Child 1, the teacher indicated that only 5 requests were categorized as 'Almost Always' (76 – 100%), 35 requests were 'Usually' (51 – 75%), 34 requests were 'Occasionally' (26 – 50%), and 20 requests were 'Rarely' (0 – 25%) compliant. For Child 2, a similar pattern is seen. The teacher rated no requests as 'Almost always', 22 as 'Usually', 42 as 'Occasionally' and 31 as 'Rarely' compliant. For the purpose of the observational probability analysis, twice as many requests (16 rather than 8) were taken from the 'Usually' category for child 2 as the teacher did not rate any requests as falling in the 'Almost Always' category. These response patterns are similar to those found in previous studies for clinic-referred children with developmental disabilities and severe noncompliance problems (Ducharme & Popynick, 1993; Ducharme et al., 1994; 1996). Again, the responses of the teacher did not contribute directly to the categorization of requests for use in the treatment phases, but provided a rough indication of which requests to employ in the observational probability analysis.

Observational Probability Analysis

Percentage of child compliance to requests from the four probability levels prior to treatment during the observational probability analysis are presented in Figure 1. A discussed in the method, the 32 requests delivered during the observational probability analysis were arranged in order from lowest to highest probability of compliance and then divided into four categories that roughly
Figure 1. Percentage of compliance to requests from the four probability levels graphed separately across session in the observational analysis. Each data point represents responses to a mean of 5.4 different requests.
approximated the probability levels of the questionnaire: level 1 (76% to 100%) to level 4 (0% to 25%). Each of the 9 observational probability analysis sessions consisted of the delivery of a mean of 5.4 requests from each probability level.

Mean levels of compliance across the 9 sessions for Child 1 were 89% for level 1, 69% for level 2, 51% for level 3, and 26% for level 4. For Child 2, mean levels were skewed in the direction of even more severe noncompliance, with 83% for level 1, 56% for level 2, 31% for level 3, and 17% for level 4. Although the teacher did not rate any requests in the 'Almost Always' category (level 1) on the questionnaire for child 2, results of the observational probability analysis indicated that there were requests that this child complied with at higher rates than the teacher perceived. For child 1, only 5 requests were selected for use in level 3, as a 6th request with compliance rates in this range (26%-50%) that could be easily delivered in the classroom setting was not produced during the observational probability analysis. Again, these observational probabilities are similar to those obtained in previous studies for children with developmental disabilities and severe noncompliance (Ducharme & Popynick, 1993; Ducharme et al., 1994; 1996).

**Baseline and Reversal Phases**

Figure 2 shows percentages of child classroom compliance during observational assessments conducted throughout pre-treatment and treatment phases for each child. During the first low probability request phase (consisting of 3 sessions for each child) of pre-treatment (level 4 requests), overall compliance to level 4 requests averaged 17% for Child 1 and 18% for Child 2. During the High Probability request phase (2 sessions) in pretreatment (level 1 requests), mean overall compliance jumped to 92% for Child 1 and 89% for Child 2. This change in compliance rates was
Figure 2. Percentage of requests followed by compliance across children in pretreatment and treatment phases. The height of the shaded areas represent mean pretreatment compliance percentages to requests from each probability level, as depicted in Figure 1.
expected, as these requests had been demonstrated to be high probability during the observational probability analysis.

When level 4 requests were reintroduced in the second low probability request phase (3 sessions for child 1 and 5 for child 2), compliance returned to low levels (i.e., 17% and 1% for Child 1 and 2, respectively), as in the previous low probability request phase. Clearly, compliance levels could be readily controlled in pretreatment, but only by altering the type of requests delivered. Noncompliance to level 4 requests remained consistent during the observational probability analyses and pretreatment reversal phases, regardless of preceding phases, demonstrating that compliance to these requests was stable and low before initiation of treatment efforts.

Treatment

In Figure 2, child compliance during sessions conducted throughout the four treatment phases is shown. Treatment data points reflect compliance to requests from the specific probability level being trained in that phase. The height of the shaded areas represent the mean percentage of child compliance during the observational probability analysis conducted before treatment for the request probability level being trained in that phase. The shading allows the reader to make direct comparisons between pretreatment and treatment levels of compliance to requests from each of the 4 compliance probability levels.

As expected in phase 1 of treatment, each child complied with level 1 requests at or near pretreatment levels (82% for Child 1 and 72% for Child 2), although there was an initial unexplained decrease in compliance for the first few sessions for Child 2. In phase 2, the effects of graduated treatment began to manifest, as compliance improved from pretreatment levels of 69% and 56%, for Child 1 and 2 respectively,
to mean treatment levels of 80% for both children. More substantial change was observed in each subsequent phase of treatment. Pretreatment levels of 51% and 31% to level 3 requests increased to 83% and 78% in phase 3 of treatment for Child 1 and Child 2, respectively. Compliance to requests from level 4, those determined to be most difficult for children to follow, demonstrated the greatest improvements in treatment. Mean gains of 62 and 55 percentage points over pretreatment levels were made in phase 4 of treatment, to 88% and 72% for Child 1 and 2, respectively.

Teacher Generalization Probes

Also illustrated in Figure 1 are the probe data collected to measure generalization of treatment effects to the classroom teacher. Each teacher generalization probe consisted of between 4 and 12 requests, with a mean of 7.3. Mean pretreatment compliance to level 4 requests delivered by the teacher was 52% for Child 1 and 33% for Child 2. Compliance increased to 84% and 83% (Child 1 and 2, respectively) to level 4 requests delivered by the teacher in phase 4 of treatment. Probes in earlier treatment phases demonstrated similar high levels of compliance to teacher delivered requests. Child 1 complied to 88% of teacher-delivered level 2 requests in Phase 2 and 92% of teacher-delivered level 3 requests in phase 3. Child 2 complied to 75% of teacher-delivered level 2 requests in phase 2 and 86% of teacher-delivered level 3 requests in phase 3.
Discussion

Two major findings were obtained in the present study. First, errorless compliance training resulted in substantial improvements in child compliance to requests delivered by the intervention agent in the classroom. Second, these gains appeared to generalize to the classroom teacher, as multiple probes throughout intervention showed similar increments in child compliance to requests delivered by the teacher from pre- to post-treatment. Before discussing these primary findings in detail, I will discuss the results of the study sequentially, starting with the observational probability analysis.

Trends observed during the observational probability analysis, which was conducted to determine which requests to employ in the four graduated request levels of treatment, were similar to those obtained in past studies (Ducharme & Popynick, 1993; Ducharme et al., 1994). Given that we first asked the teacher to provide her perception of child compliance probability to a wide range of requests using the School Compliance Probability Questionnaire, we were able to select requests for study inclusion that sampled the widest possible range of child compliance probabilities during the observational probability analysis. Thus, after the observational probability analysis, we were able to order the requests according to compliance probability for each child, and divide them into 4 diverse compliance probability levels. This enabled the graduated training process essential to the errorless approach.

Following the observational probability analysis, a baseline with reversal phase was implemented. This began with a phase of low probability (level 4) request delivery, followed by a phase of high probability request (level 1) delivery, with a
subsequent return to low probability requests. During these phases, children responded as predicted by the observational probability analysis results, with low compliance levels occurring in response to level 4 requests and high compliance levels occurring to high probability requests. This 3 phase analysis served two purposes: first, it demonstrated that experimental control of child compliance could be obtained and modified through differential request delivery, and second, that compliance to requests within probability levels was stable and unchanging. Thus, this analysis further demonstrated the durability of compliance probability levels and confirmed that without treatment, these children were likely to continue presenting severe classroom management difficulties to the teacher. The low compliance levels during the two level 4 baseline phases were consistent across both the intervention agent and the classroom teacher.

Following treatment initiation, which involved the delivery of level 1 requests and the provision of profuse praise and warmth to the children after compliant responses, compliance levels increased (although for child 2, approximately three sessions were required before compliance stabilized at a high level). This introduction of high probability requests allowed the children to experience high levels of success and social rewards contingent on compliant responses. Because the few non-compliant responses that occurred were ignored (i.e., no provision of potentially reinforcing negative attention for noncompliance), they became nonfunctional for the child (i.e., they no longer provided access to negative attention).

As lower probability levels were introduced in a graduated manner, compliance remained high (e.g., over 75%), despite the absence of a punitive consequence for noncompliant responses. Compliance appeared to replace noncompliance as a means
for children to access attention. Even after the introduction of level 4 requests, both children continued to show high levels of compliance to the intervention agent. Considering the durability of noncompliant responses to these difficult requests prior to treatment, the increases in compliance were substantial.

In addition to increased compliance to the intervention agent, the findings suggested that compliance effects generalized to the classroom teacher. During multiple probes (14 in all) conducted during both pretreatment and treatment phases, increases in children’s rates of compliance to the teacher were observed. During each probe, the teacher issued the same requests as the intervention agent (e.g., level 4 requests in baseline and during phase 4 of treatment) and, during treatment phases, employed the same treatment procedures (e.g., enthusiastic praise for compliance).

We hypothesize that the apparent generalization from requests made by the intervention agent to those made by the classroom teacher occurred because of the similarity between treatment and generalization conditions. One documented approach to effecting generalization involves ensuring the presence of sufficient common stimuli in the treatment setting and the natural setting, where generalization is desired (Stokes & Baer, 1977).

For the purposes of discussion, conditions surrounding the intervention agent could be considered the treatment setting in the present study, and those surrounding the teacher, the generalization setting. Given that the intervention was conducted by the intervention agent directly in the natural classroom setting where the teacher taught, most stimulus conditions for treatment and generalization were identical. The only distinct stimuli were the personal characteristics of the two individuals delivering requests. Thus, it appeared that once children learned that compliance was
easy (due to graduated treatment levels) and was associated with pleasant consequences (the praise of the intervention agent) in the classroom environment, the common stimulus conditions enabled children to generalize to other individuals delivering requests in the same environment.

**Limitations and Future Directions**

Given the pilot nature of this investigation, there are several limitations to the findings that suggest future research directions. First, we were unable to conduct follow-up sessions to determine whether the compliance gains maintained beyond the end of treatment. Given that the intervention started late in the school year and the final treatment sessions were conducted just as the school year ended, we were unable to collect classroom data beyond the end of classes. We should note however, that during the final phase of treatment, we collected data on level 4 requests for 5 sessions for Child 1 and 4 sessions for Child 2, indicating that compliance maintained for several weeks after introduction of level 4 requests in treatment. In future studies, earlier initiation of the intervention would provide more opportunities to assess the durability of the intervention during the school year.

Second, although the use of an intervention agent other than the teacher provided the opportunity to assess generalization to teacher-delivered requests in the present research, future investigations should examine the effectiveness of the approach when implemented directly by the classroom teacher. An important aspect of any treatment is its practicality for conduction under typical classroom circumstances. Notwithstanding the common presence of support staff such as educational assistants to assist with classroom management of children with special
needs, the most rigorous test of the classroom utility of an intervention is its usability by the teacher responsible for the education of the child.

In many instances, a maladaptive pattern of interaction may have developed between the teacher and non-compliant child. The use of the intervention agent in the present study created a situation in which an individual with no history with the child developed a relationship abundant with positive interaction. This may have allowed the child to more readily respond to the intervention agent as it was not necessary to change the pattern of interaction or repair the relationship. However, treatment in the home with parents and children, who generally have a more extensive history of negative interactional patterns than teachers and their students, has had the effect of increased child compliance and has reduced the need for punitive and reactive approaches to child behaviour management that contribute to these negative interactions (Ducharme & Popynick, 1993; Ducharme, 1996).

Third, the observational probability analysis, which enables the use of graduated treatment phases, posed the most serious practical concern in the present study. The probability analysis can be time consuming in the classroom, particularly when two children are undergoing treatment in the same class, as in the present study. A future direction with this approach in the classroom may involve simplification of the probability analysis through the development of a generic list of requests from each probability level. Through classroom observations of a large number of children with oppositional difficulties, we may be able to determine requests that consistently yield similar probabilities of compliance for most children. Thus, we may determine through observation that there are 10 classroom requests that almost always yield compliance across all observed children and therefore could be used as level 1
requests in future treatment endeavours. Similar trends may be found with other probability levels. For example, one might assume that “Give me five” or “Go to recess” would be easy for most children to comply with, while “Sit in your chair” or “Wait your turn” might be some of the more generally difficult requests. Such a generic list might preclude the need for an observational assessment specific to each child, or greatly reduce the duration of such an assessment.

Fourth, due to the demanding nature of the teacher's duties in the present study, we were unable to conduct broader assessments of child behaviour with pre and post-treatment standardized measures, such as the Child Behavior Checklist (Achenbach & Edelbrock, 1983). Such measures would provide evidence regarding the potential to obtain widespread treatment effects using the errorless approach.

Fifth, limited resources precluded assessment of generalization of treatment effects to the home environment. Such an assessment would assist researchers in determining whether intervention in one setting (home or school) would facilitate or even obviate the need for treatment in the other environment. Finally, the present study was a single case design with a sample of 2 children. Although such a study is useful for pilot purposes to establish potential effectiveness of a new treatment, a larger sample would help to establish the generality of effects.

The findings of the present study provide the first evidence that the errorless approach can be used to promote improvements in child prosocial classroom behaviour without the use of punitive consequences. In fact, the changes in child compliance levels after treatment in this study are comparable to those obtained when the approach is implemented by parents in the family home (Ducharme & Popynick, 1993; Ducharme et al., 1994; 1996). In light of the fact that reactive approaches are
commonly used in attempts to manage oppositional behaviour in the schools (Evertson & Harris, 1992), the present results are encouraging, as they indicate that substantial changes in child classroom compliance can be advanced with more proactive approaches.
References


Appendix A

Project Description for Parents

Dear Parent/Guardian:

We are interested in conducting a research study to evaluate a new approach for assisting children who are experiencing difficulty handling everyday classroom conditions. Some children have trouble dealing with the kinds of situations that often occur in the classroom, such as working quietly at their desk, turning off a computer after playing an enjoyable game, or putting away their work materials after using them. Over the last few years, we have been developing strategies for helping these children learn how to handle these situations better. One strategy that we have developed is called “Errorless Remediation”.

With this approach, we first observe the teacher as he/she asks the child to carry out classroom requests and activities. By watching the classroom for a few days, we can find out which requests and activities the child will do with no problem, and which ones the child rarely does when asked by the teacher. We also find out some requests and activities that the child will do some of the time (perhaps when they are in a good mood) and will not do at other times.

We then ask the teacher to spend the first few weeks asking the child to do a lot of things that we know the child will do with no problem. We also ask the teacher to give the child lots of praise and encouragement every time he/she completes one of these requests or activities after being asked by the teacher. Thus, the child receives lots of positive teacher attention for doing the things that the teacher asks. The teacher then starts asking the child to do things that are a little harder for the child to do and continues to praise the child for following the requests.

After several weeks of gradually asking the child to do more and more difficult things, we have found that the teacher can start asking the child to do the things that the child would rarely do earlier when asked by the teacher. For example, the child might be more likely to turn off the computer and go to his/her desk when asked by the teacher, even though the child did not usually follow this request before the approach was used. The child will typically follow even these difficult teacher requests, because he/she enjoys getting so much encouragement from the teacher.

We like using this approach with children because it allows the child to be successful in dealing with classroom situations by making the situations easier for them. The child is then gradually taught to handle even the most difficult classroom situations at a slow enough pace that they can continue to be successful. By the end of the intervention, children are typically much more cooperative with the requests of the teacher and willing to participate in the ongoing classroom activities. We have so far encountered no risks to children with this intervention beyond those that normally occur in a classroom in which children occasionally act out.

We would like to use this approach with your child and other children in the classroom because we think it will help them. The approach can be fit easily into the regular classroom routine. If you feel that this approach will be helpful, the approach can become part of the teacher’s routine with your child (the teacher agrees with the approach and is willing to use it with the children in the classroom).

In order to find out whether we actually helped your child to deal with classroom situations, we will ask the teacher to collect data on certain behaviours, such as how often the child follows teacher requests. The teacher will also be asked to fill out some questionnaires that will measure how often the child is following his/her requests and whether the child’s classroom behaviour has changed in any way. We will try to find out if the child and the teacher feel better about how well the child handles classroom situations by asking them to fill out questionnaires. We may also ask you to fill out similar questionnaires to see if your child’s behaviour has changed at home.
We would like to videotape the teacher and child in the classroom from time to time so that we can determine whether we have helped the child to deal with classroom situations better. We may also use videotapes to provide constructive feedback to the teacher on use of the project procedures. These videotapes, assessment documents, and all other information about your child that is collected through this project will be kept completely confidential except as required by law. This means that they may be subject to subpoena (e.g., in a custody dispute). This information will be accessible only to myself, the teacher and any students who are formally associated with this project. The tapes and other confidential information will be stored in a locked filing cabinet at all times. The videotapes will be erased within 12 months of the completion of the project.

We will publish the results of this study and present them at conferences to demonstrate to other teachers and professionals the potential of this new approach for building cooperation in the classroom. In any papers or presentation related to the findings of this project, we will make sure that the children’s names are never used and the exact location of the study is not mentioned. The videotapes will never be shown during presentations about the project unless we obtain your consent for such specific use in the future. You should be aware that the participation of you and your child in this project is completely voluntary and you may refuse to participate without adverse consequences to you or your child. If you agree to the participation of you and your child, you can withdraw from the project at any time with no adverse consequences to you or your child. You will be made aware of the results of the project through verbal and written reports from the teacher and/or a member of the project team. If you have any questions about the study, please feel free to call me at (416) 923-6641, Ext. 2265. Thank you for considering participation in this project.

Sincerely,

Joe Ducharme, Ph.D., C. Psych., Associate Professor
Ontario Institute for Studies in Education of the University of Toronto
Consent Form for Parents

Parental Consent Form - The Errorless Remediation Project

Investigator: Joe Ducharme, Ph.D, C. Psych.
University of Toronto, (416) 923-6641 (Ext. 2265)

- I understand that the purpose of this research project is to evaluate a new and positive approach to teaching my child to handle classroom situations that he/she may find difficult and to improving cooperation between my child and the teacher.

- I understand that the project involves the collection of data by the teacher on my child's behaviour in the classroom and the completion of questionnaires by the teacher and possibly by me before and after the intervention, as described in the project description. In addition, my child and the teacher may be videotaped from time to time in the classroom so that the project team can see whether they have helped my child. The videotape may also be used to provide constructive feedback to the teacher on her use of the project procedures.

- I understand that these videotapes, assessment documents and all other information about my child that is collected through this project will be kept completely confidential, except as required by law. This means that they may be subject to subpoena (e.g., in a custody dispute). This information will only be accessible to Dr. Ducharme, the teacher, and students or research assistants formally associated with this project. These videotapes will never be shown during presentations about the project unless the researchers obtain my consent for such specific use in the future. The tapes and other confidential information will be stored in a locked filing cabinet at all times. The videotapes will be erased within 12 months of the completion of the project. In any papers or presentation related to the findings of this project, my child's name will never be used and the exact location of the study will not be mentioned.

- I am aware that the participation of my child and me in this project is completely voluntary and that I may refuse to participate without adverse consequences to my child or me. I also am aware that I have the right to withdraw my child from the study at any time without any adverse consequences to my child or me. I understand that I will be made aware of the results of the project with my child through verbal and written reports from the teacher and/or a member of the project team. I am also aware that if I would like to discuss the project further or ask any questions, I can feel free to call Dr. Joe Ducharme at (416) 923-6641 (Ext. 2265).

- The Errorless Remediation Project has been explained to me, I have read the project description and I understand the nature of the project. I give permission for my child ____________ to participate in the Errorless Classroom Project under the conditions specified above and in the project description. My child was present for discussion of the project and has agreed to participate.

Name of Parent/Guardian ______________________ Signature ______________________ Date ________________
Project Description for School Personnel

Dear Principal/Teacher/Educational Assistant:

We are interested in conducting a research study to evaluate a new approach for assisting children who are experiencing difficulty handling everyday classroom conditions. Some children have trouble dealing with the kinds of situations that often occur in the classroom, such as working quietly at their desk, turning off a computer after playing an enjoyable game, or putting away their work materials after using them. Over the last few years, we have been developing strategies for helping these children learn how to handle these situations better. One strategy that we have developed is called "Errorless Remediation".

With this approach, we first observe the teacher and child as the teacher asks the child to carry out classroom requests and activities. By watching the classroom for a few days, we can find out which requests and activities the child will do with no problem, and which ones the child rarely does when asked by the teacher. We also find out some requests and activities that the child will do some of the time (perhaps when they are in a good mood) and will not do at other times. These observations will also help us to determine those classroom situations most likely to cause difficulty to the teacher.

We then ask the teacher to spend the first few weeks asking the child to do a lot of things that we know the child will do with no problem. We also ask the teacher to give the child lots of praise and encouragement every time he/she completes one of these requests or activities after being asked by the teacher. Thus, the child receives lots of positive teacher attention for doing the things that the teacher asks. Over several weeks, the teacher gradually starts asking the child to do things that are a little harder for the child to do and continues to praise the child for following the requests.

After several weeks of asking the child to do increasingly more difficult things, we have found that teachers can ask children to do the things that they would rarely do earlier when asked by the teacher. The child will typically follow even these difficult teacher requests, because he/she enjoys getting so much encouragement from the teacher.

We like using this approach with children because it allows the child to be successful in dealing with classroom situations by making the situations easier for them. The child is then gradually taught to handle even the most difficult classroom situations at a slow enough pace that they can continue to be successful. By the end of the intervention, children are typically much more cooperative with the requests of the teacher and willing to participate in the ongoing classroom activities. We have so far encountered no risks to children with this intervention beyond those that normally occur in a classroom in which children occasionally act out.

We are interested in using this approach in the classrooms of teachers who think that the approach may help them to work more effectively with children who are sometimes oppositional to classroom routines. The approach can easily be fit into the regular classroom routine and teachers who volunteer to participate will become part of a collaborative team of individuals who will jointly make decisions regarding the use of the intervention approach in the classroom.

In order to find out whether we actually helped the students to deal with classroom situations, we will ask the teacher to collect data on certain behaviours, such as how often the child follows teacher requests. The teacher will also be asked to fill out some questionnaires that will measure how often the child is following his/her requests and whether the child's classroom behaviour has changed in any way. We will try to find out if the child and the teacher feel better about how well the child handles classroom situations by asking them to fill out questionnaires. We may also ask the parent to fill out similar questionnaires to find out if child behaviour has changed at home.

We would like to videotape the teacher and child in the classroom from time to time so that we can determine whether we have helped the child to deal more effectively with classroom situations. We may also use videotapes to provide constructive feedback to the teacher on use of the project procedures. Videotapes, assessment documents, and all other information that is collected through this
The project will be kept completely confidential except as required by law. This means that they may be subject to subpoena (e.g., in a custody dispute). This information will only be accessible to myself, the teacher and any students who are formally associated with this project and will not be used to evaluate teacher performance in the classroom. The tapes and other confidential information will be stored in a locked filing cabinet at all times. The videotapes will be erased within 12 months of the completion of the project.

We will publish the results of this study and present them at conferences to demonstrate to other teachers and professionals the potential of this new approach for building cooperation in the classroom. In any papers or presentation related to the findings of this project, we will make sure that teachers’ or children’s names are never used and the exact location of the study is not mentioned. The videotapes will never be shown during presentations about the project unless we obtain the teacher’s (as well as the parent’s) consent for such specific use in the future. Teachers should be aware that their participation in this project is completely voluntary and they may refuse to participate without any adverse consequences. Teachers who agree to participate can withdraw from the project at any time with no adverse consequences. Teachers will be made aware of the results of the project through verbal and written reports from a member of the project team.

If you have any questions about the study, please feel free to call me at (416) 923-6641, Ext. 2265. Thank you for considering participation in this project.

Sincerely,

Joe Ducharme, Ph.D., C. Psych., Associate Professor
Ontario Institute for Studies in Education of the University of Toronto
Consent Form for Teachers

Teacher Consent Form - The Errorless Remediation Project

Investigator: Joe Ducharme, Ph.D, C. Psych.
University of Toronto, (416) 923-6641 (Ext. 2265)

- I understand that the purpose of this research project is to evaluate a new and positive approach to teaching children to handle classroom situations that they may find difficult and to improving cooperation between myself and the children in my class.

- I understand that if I volunteer for this project, I will be required to collect data on the behaviour of some of the children in my classroom and complete questionnaires before and after the intervention, as described in the project description. I will also be required to modify my classroom interactions to conduct the intervention. In addition, I recognize that the child and me may be videotaped from time to time in the classroom so that the project team can see whether they have helped the student. The videotape may also be used to provide me with constructive feedback on my use of project procedures. I realize that I will be supported in these data collection duties by graduate students or research assistants working with Dr. Ducharme, and that I will collaboratively participate in any decisions about assessment and treatment procedures to ensure that the intervention does not impede my educational duties.

- I understand that videotapes, assessment documents and all other information collected through this project will be kept completely confidential, except as required by law. This means that they may be subject to subpoena (e.g., in a custody dispute). This information will be accessible only to Dr. Ducharme, myself, and students or research assistants formally associated with this project and will not be used as an evaluation of my classroom performance. These videotapes will never be shown during presentations about the project unless the researchers obtain my consent (as well as parental consent) for such specific use in the future. Tapes and other confidential information will be stored in a locked filing cabinet at all times. The videotapes will be erased within 12 months of the completion of the project. In any papers or presentation related to project findings, my name will never be used and the exact location of the study will not be mentioned.

- I am aware that my involvement in this project is completely voluntary, that I am under no obligation to project or school personnel to participate and that I may refuse to participate without any adverse consequences. I am also aware that I have the right to withdraw from the study at any time without any adverse consequences. I understand that I will be made aware of the results of the project through verbal and written reports from a member of the project team. I am also aware that if I would like to discuss the project further or ask any questions, I can call Dr. Joe Ducharme at (416) 923-6641 (Ext. 2265).

- The Errorless Remediation Project has been explained to me, I have read the project description and I understand the nature of the project. I am willingly volunteering to participate in the Errorless Remediation Project under the conditions specified above and in the project description.

Name of Teacher ___________________________ Signature ___________________________ Date ___________________________

The Errorless Remediation Project has been explained to me, I have read the project description and I understand the nature of the project. I am willingly volunteering to participate in the Errorless Remediation Project under the conditions specified above and in the project description.
Consent Form for Principals

Principal Consent Form - The Errorless Remediation Project

Investigator: Joe Ducharme, Ph.D, C. Psych.
University of Toronto, (416) 923-6641 (Ext. 2265)

- I understand that the purpose of this research project is to evaluate a new and positive approach to teaching children to handle classroom situations that he/she may find difficult and to improving cooperation between myself and the children in my class.

- I understand that if I consent to involvement of my school for this project, the teacher in the participating classroom will be required to collect data on the behaviour of some of the children and complete questionnaires before and after the intervention, as discussed in the project description. The teacher will be required to modify classroom interactions to conduct the intervention. In addition, the teacher and child may be videotaped from time to time in the classroom (with their consent) so that the project team can see whether they have helped the student. The videotape may also be used to provide the teacher with constructive feedback on use of project procedures. The teacher will be supported in these data collection duties by graduate students or research assistants working with Dr. Ducharme, and the teacher will collaboratively participate in any decisions about assessment and treatment procedures to ensure that the intervention does not impede educational duties.

- I understand that videotapes, assessment documents and all other information collected through this project will be kept completely confidential, except as required by law. This means that they may be subject to subpoena (e.g., in a custody dispute). This information will be accessible only to Dr. Ducharme, the teacher, and students or research assistants formally associated with this project and will not be used as an evaluation of the teacher’s classroom performance. These videotapes will never be shown during presentations about the project unless the researchers obtain the teacher’s (as well as parental) consent for such specific use in the future. Tapes and other confidential information will be stored in a locked filing cabinet at all times. The videotapes will be erased within 12 months of the completion of the project. In any papers or presentation related to project findings, the child’s or teachers’ names will never be used and the exact location of the study will not be mentioned.

- I am aware that participation of the classroom teacher in this project is completely voluntary and I will not put pressure on any teacher to participate. I am aware that the teacher may refuse to participate in this project or withdraw from the study at any time without any adverse consequences. I am also aware that I may refuse to involve my school in this project or may withdraw my school from participation at any time without adverse consequences. I understand that I will be informed of project results through verbal and written reports from a member of the project team. I am also aware that if I would like to discuss the project further or ask any questions, I can call Dr. Joe Ducharme at (416) 923-6641 Ext. 2265.

- The Errorless Remediation Project has been explained to me, I have read the project description and I understand the nature of the project. I am willing to have my school involved in the Errorless Remediation Project under the conditions specified above and in the project description, if one of my teachers willingly volunteers.

______________________________  ______________________________  _______________  
Name of Principal                      Signature                          Date
Appendix B

SCHOOL COMPLIANCE PROBABILITY QUESTIONNAIRE

Child's Name: __________________________ Date: ______________
Completed by: __________________________

Listed below are a series of requests you may present to a child in a given day. What is the likelihood that the child will comply to this request if the request is stated only once? Please check ( ) the appropriate box beside each command.

<table>
<thead>
<tr>
<th>Request</th>
<th>Almost Always 76-100%</th>
<th>Usually 51-75%</th>
<th>Occasionally 26-50%</th>
<th>Rarely 0-25%</th>
<th>Skill Not Learned</th>
<th>This Request is Important to me ( ) or (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRESSING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get your coat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get your shoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put on your coat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put on your shoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tie the laces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tie the laces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fasten your buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do up your zipper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undo your coat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take off your coat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hang up your coat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put your knapsack (somewhere)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put your boots in the hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYGIENE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash your hands</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash your face</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn on the tap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn off the tap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flush the toilet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use the soap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry your hands</td>
<td>Almost Always 76-100%</td>
<td>Usually 51-75%</td>
<td>Occasionally 26-50%</td>
<td>Rarely 0-25%</td>
<td>Skill Not Learned</td>
<td>This request is Important to me ( ) or (x)</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>--------------</td>
<td>-----------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Dry your face</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLAY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go get your (play item)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play with your toys (games)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the puzzle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put this piece in the puzzle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throw me the ball</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catch the ball</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play some music (instruments)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sing to the music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dance to the music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jump up and down</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ride your (individual item)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw me a picture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour the picture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn on the music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn up/down the volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put your hands up in the air</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamp your feet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play patty cakes with me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stack the blocks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do a somersault</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sing the song</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Push the toy car</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Almost Always 76-100%</td>
<td>Usually 51-75%</td>
<td>Occasionally 26-50%</td>
<td>Rarely 0-25%</td>
<td>Skill Not Learned</td>
<td>This Request is Important to me ( ) or (x)</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>--------------</td>
<td>-----------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Hug the doll/stuffed toy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pick a toy/activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blow bubbles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACADEMIC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trace the (particular objects)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw a (particular object)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw a line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut out the picture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point to the _______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find me a picture of a _____</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print your name</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell me your name</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show me the _______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give me the _______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell me where your _____ is</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count for me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count the _______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open the book</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take the book out of your desk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put the book away</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get your pencil out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put your pencil away</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read this to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn the page</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touch your _______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place the sticker on the sheet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIAL</td>
<td>Almost Always 76-100%</td>
<td>Usually 51-75%</td>
<td>Occasionally 26-50%</td>
<td>Rarely 0-25%</td>
<td>Skill Not Learned</td>
<td>This Request is Important to me ( ) or (x)</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>--------------</td>
<td>------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Give me a hug</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give me five</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shake my hand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clap your hands</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold my hand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sit beside me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| MEALTIME        |                       |                |                     |              |                  |                                          |
| Set the table   |                       |                |                     |              |                  |                                          |
| Put the _______ on the table |          |                |                     |              |                  |                                          |
| Come to the table |                   |                |                     |              |                  |                                          |
| Eat your (particular food item) |     |                |                     |              |                  |                                          |
| Pass the (particular item) |             |                |                     |              |                  |                                          |
| Use your (particular utensil) |          |                |                     |              |                  |                                          |
| Sit in your chair |                   |                |                     |              |                  |                                          |
| Drink your (particular drink) |           |                |                     |              |                  |                                          |
| Pour yourself a drink of |           |                |                     |              |                  |                                          |
| Wipe your mouth |                       |                |                     |              |                  |                                          |
| Go get a (particular treat) |        |                |                     |              |                  |                                          |

<p>| CLEAN-UP       |                       |                |                     |              |                  |                                          |
| Put away your toys |                 |                |                     |              |                  |                                          |
| Pick up your _____ |                 |                |                     |              |                  |                                          |
| Put your dish in the sink |        |                |                     |              |                  |                                          |</p>
<table>
<thead>
<tr>
<th>Action</th>
<th>Almost Always 76-100%</th>
<th>Usually 51-75%</th>
<th>Occasionally 26-50%</th>
<th>Rarely 0-25%</th>
<th>Skill Not Learned</th>
<th>This Request is Important to me ( ) or (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSPORTATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get into the car/bus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put on your seatbelt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get out of the car/bus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENERAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look at me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Come here</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold this</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sit down</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close the door</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand in line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line up for recess</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go to the particular place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn off the music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Push your chair in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bring me (non-play item)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell me your address</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell me your telephone number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Come inside</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bring me your chair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do this (particular thing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get your ___</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speak quietly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Requests selected for each Child

Child 1

Level 1
Hold this
Draw a picture
Count the___
Wipe your Face
Turn the Page
Smile

Level 2
Show me ____
Open the book
Point to the ___
Clean your hands
Sing
Touch your___

Level 3
Sit in your chair
Tell me your name
Sit beside me
Pick up your____
Look at ___

Level 4
Put the book away
Get the___
Give me
Come here
Hold my hand
Come to the table

Child 2

Level 1
Put this piece in the puzzle
Pick up____
Draw me a picture
Hold this
Touch your___
Clean your hands

Level 2
Put baby in the chair
Give me the ___
Count the___
Tell me your name
Open the book
Wipe your face

Level 3
Go get____
Draw a line
Sit beside me
Show me the
Point to the___
Look at me

Level 4
Come to the Table
Hold my hand
Sit in your chair
Come here
Sing
Put away the___