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The Effects of Using the Process Communication Model ® to Support the Behaviors of Students with Disabilities

by

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Submitted in partial fulfillment of the Master of Arts in Education

School of Education

College of Education, Health and Human Services

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ABSTRACT

This study investigated the use of psychological concepts and communication theory strategies to support the behaviors of three elementary age students with moderate disabilities. Given that behavior is a form of communication, the researcher used communication techniques to promote and support positive behaviors for the three target students. The specific psychological theory and set of practices used in this research project is known as the Process Communication Model (PCM). In this model, each student’s behavior needs are addressed by “speaking to” the students according to their respective personality type, which includes personality strengths, needs, and preferred channel. The research explored whether the researcher’s deliberate use of PCM might decrease negative behaviors (i.e. refusals, off-task and aggression) and increase positive engagement of the target students. The behaviors were observed and measured by frequency of occurrence and an informal functional behavior analysis was conducted to determine the function of their behaviors. Results showed an increase in challenging behaviors for one student, a decrease in refusals in another, and a decrease in all three behaviors in the third participant. A surprise result included the near elimination of all challenging behaviors once the student was included in a general education class twice a day. The ultimate success of the study was the researcher’s improved understanding of and relationship with those students, achieved by relating to them according to their personality.

Keywords: Behavior intervention, Process Communication Model, special education
Dedication

To the fabulous five involved in the inspiration of, or support throughout, this research: Taibi Kahler, Judith Pauley, Joe Pauley, Jacqueline Thousand, and Matthew Cipolla. Whether I have never met you or have lived with you, or have done any work in-between with you, I am deeply grateful for your support in helping me create and complete this work.
Chapter 1

Introduction

At least two major “hot topics” in education are making their rounds through school campuses these days: curriculum and behavior modification. Both equally important to the transmission of information within a classroom, researchers have been studying successful methods of implementation for both over many decades. The topic of this research has to do with the latter and takes place particularly in the realm of special education. Before a general education audience dismisses this topic, it will behoove them to read on, as “those students” may surely and quickly become “our students,” due to the “Learning Center Model” making its way into schools across the nation.

Schools in California are beginning to adopt the “Learning Center Model” (LCM), which many eastern states have used for years. The precept of this model is to be true to the promise of all public schools to keep children in the “least restrictive environment” (LRE). This means that if the education of a child with a disability is hindered by being in a more restrictive environment (i.e. students with moderate and severe needs), that student has the right to move into a class that has less restrictions on his social and academic learning. The most restrictive environment in a public school is the “moderate/severe” setting. The next, less-restrictive environment, the “mild/moderate” program, used to be a classroom of its own, but the LCM will combine this level of education with the level of education that is only slightly more restrictive than the mainstream classes: Resource education. Thus, resource students and students with
mild and moderate disabilities will all be together in one learning center soon, if not already.

Such a unified model will require even more skill and knowledge of curriculum and behavior management from teachers who are involved with these students. Staff will need to know how to apply the Common Core curriculum to different levels of abilities and encourage students in cooperative groups to draw on each person’s strengths to help everyone succeed. In just the same way, teachers (both general and specialists) will need to be confident in applying the latest and greatest means of managing challenging behaviors. Since students with mild or moderate disabilities often have struggles learning, emotional reactions sometimes emerge from the frustration of their inability to grasp a concept. Such frustration can lead to frequent outbursts, task-refusals, erratic actions, or a combination of any. Although the task of behavior management—especially serving a wider variety of students—seems daunting, research in this area provides a plethora of options for teachers to turn “behavior strategies” into part of their everyday routine.

This research examines the effects of implementing a behavior modification strategy with what a general education teacher might call her “worst case scenario” students: those with moderate-severe disabilities. The researcher suggests, though, that teachers steer clear of the term “behavior modification” or “behavior management” and instead, as Larson suggests, refer to the approaches as “relationship building” (n.d., p. 8). As it is well known by many researchers who study autism, behavior communicates something that may not easily be spoken (Rubin, 2011). So it is logical to presume that behavior challenges might arise from at least, miscommunications or at worst, superficial
relationships between teacher and student. If that is the case, teachers will need to look more closely at how they communicate, and how their communication (or lack thereof) might affect a child who sees the world very differently. Instead of going to a professional development training on “behavior management,” this research shows that merely stepping into the shoes of someone with a different personality type and a different perception of the world may be a useful tool in resolving communication, and thus, behavioral conflicts at school. The model of relationship building that is used in this research is the Process Communication Model ® (PCM).

Background

The Process Communication Model ® was developed and tested by an internationally known psychologist, Dr. Taibi Kahler. Through his studies of Transactional Analysis, developed by Dr. Eric Berne, Dr. Kahler discovered that people interact with others according to certain personality characteristics and with varying degrees of energy. Each personality type has unique perceptions, strengths and motivations that can manifest themselves in positive or negative ways, according to internal or external stimuli (Kahler, 1982; Pauley, Bradley, & Pauley, 2002). In 1971, Dr. Kahler combined his own research with that of Berne’s and created what is known today as PCM.

The application of PCM emerged in public in 1978, when the National Aeronautics and Space Administration (NASA) used the concepts to help “select and train astronauts” learn to relate to each other cohesively in tight quarters and under stressful circumstances (Gilbert, 1999, p. 247). In 1981, PCM ventured into the business
and medical worlds as a management tool for employee solidarity and in 1987 teachers began to inquire about using PCM in classrooms (Pauley & Pauley, 2012). Since then, it has gained attention from many educational researchers who have applied the principles at the district, school, classroom and individual student levels.

One of the key ideas of the PCM is that every person has any combination of six different personality types, alive or dormant, within them. Of the six possible types, most people have one or two that play a dominant role in their interactions, and it is from those parts of them that their needs, perceptions and communication styles manifest themselves. It is worth mentioning that none of these personality types “trump” over others: each type is equally respectable and provide the world with the necessary varieties to keep life interesting (Pauley et al., 2002). Although some psychologists and teachers are against labeling people, for fear of “putting them into a box,” labels can be useful in providing a quick glance of one part of a person. The label(s) and brief descriptions of the strengths and needs of people with those six personality types are listed as follows (taken from Kahler, 2010, Pocket PCM application for iPad and Pauley et al., 2002, p. 24):

- **FEELER/ HARMONISER**: Strengths include being compassionate, sensitive and warm. This type of person perceives the world through her feelings and emotions. They need to feel valued and cared for as a person, to have nurturing interactions with others and comfortable sensory stimulation. *Career/hobby examples*: Preschool teacher or informal interior decorator.

- **PERSISTER**: Strengths are dedication, being conscientious and observant. This type of person makes judgments of the world and evaluates situations. They need
opportunities to express their opinions, to have their hard work recognized and for people to respect their commitment to a cause or value. *Career/hobby examples:* Teacher or Environmental activist.

- **THINKER:** Being logical, responsible and organized are the strengths of this personality. As one might guess, this type of person perceives the world through one’s thoughts and analyses of situations. Thinkers need to have both their hard work and ability to think clearly appreciated. They need to know exactly what and when something needs to be done, and for themselves and others to be on time. *Career/hobby examples:* Accountant or Think-Tank team member.

- **DREAMER/IMAGINER:** Reflective, imaginative and calm. This person perceives the world through reflections and imaginations. They need solitude and time alone, which helps them regain energy and focus. *Career/hobby example:* Philosopher or park ranger.

- **REBEL:** Spontaneous, creative and playful. This type perceives the world through having fun and “unfiltered likes and dislikes.” They need “playful contact” and to be interactive with others in a lively environment. *Career/hobby example:* Activity director at a resort or hotel.

- **PROMOTER:** Adaptable, charming and persuasive. This type perceives the world through “experiencing situations and making things happen.” They have a need for a lot of “action in a short period of time” and healthy competition and challenges. They want people to get to the point. *Career/hobby examples:* a talented salesman who closes deals successfully and swiftly, or a rock climber.
At this point, it is important to address the different degrees of personalities that exist within a person. As mentioned earlier, everybody contains pieces of all six personality types within them, which Dr. Kahler best describes as someone’s personality condominium (Pauley et al., 2002, p. 6). The Figure 1.0 below shows the makeup of a person with a base personality of Feeler. Just as the bottom floor is the easiest one to access in a real condo building, so is the bottom floor of someone’s personality condo also the one she operates out of with most ease. In Dr. Kahler’s terms, that base floor is the one where a person has the most energy to interact with others and “it is theorized that people are born with their base personality type already developed and the other types may be arranged or determined by environmental factors” (p. 6). In the figure, this person’s least developed part of her personality is Promoter, which means she naturally lacks the energy to interact with people of this type. Dr. Kahler noticed that although people’s basic needs and strengths were determined by their base floor personality, their motivations and distress signals matched those characteristics of the phase type. Simply put, a phase change happens when people undergo a significant change in their life that unlocks a different part of their personality structure. At least two-thirds of people will experience a phase change in their life, and the phase can last a short or a long time (Pauley et al., 2002).
To summarize the idea of a phase, one’s personality base floor tells us how to meet his needs and how to address him in his preferred channel of communication. His phase tells us what his current motivations are and how he reacts in distress. Thus, the strengths of the person who operates under the personality condo of Figure 1 are the following: warm, compassionate and sensitive. She prefers to communicate with people in caring tones, yet her motivations to work may be driven more by values than feelings because she is in the Persister phase. For the purposes of this study, the researcher is assuming that due to the young age of the participants, they have not had sufficient time to undergo a phase change. The concept of phasing, however, is important to understanding someone’s personality condominium because that is how to know what is currently motivating that person. This is especially useful for teachers who are trying to discern how to engage a variety of student personalities through their words, actions and facial expressions to the work at hand.
At this point one might wonder exactly what does “speaking to” someone’s personality look like in practice? In a sense, the answer is similar to how people judge our words and actions according to a situation. For example, one speaks differently to someone who just lost his favorite job of nine years than to someone who needs to be pumped up to score a touchdown in the next play. Our tones, body language, and facial expressions are going to sound different in each situation. In many ways, so too, does PCM teach that it is helpful, if not essential, for people to speak to different personalities with certain tones, words and faces. The main difference between the judgment scenarios above and the PCM is the latter provides tools and options geared specifically toward each personality type. Thus, when people use PCM, they are not only using their common sense about what to say or how to say it to someone in a certain situation, but they are also using a particular set of skills aimed toward speaking to that personality.

Pauley and her colleagues (2002) liken the idea of adjusting tone and content while speaking with different personalities to that of using a hand radio (p. 27). If an emergency first responder in one vehicle is on channel 5 and his partner in another vehicle is on channel 8, they will not hear each other clearly—perhaps they will hear static, or even a completely different message. When they are on the same channel; however, they can communicate effectively. The challenge for teachers is to know their own preferred channels of communication and those of their students, so that clear communication follows. The following list shows how people prefer to be spoken to according to their personality types (p. 28):
• Directive channel: Works best for Imaginers and Promoters. It sounds matter of fact and offers clear direction. “Tell me where…” The face of someone speaking in this channel shows little emotion.

• Requestive channel: Thinkers and Persisters respond well to this channel, which sounds like a request. “Will you please tell me…?” The facial expression may have raised eyebrows and an inquiring look.

• Nurturative channel: Works especially well for Feelers. It may sound something like, “How are you feeling about…?” The face may have soft eyes and a nurturing tone.

• Emotive channel: Brings more emotion into the conversation than other channels do! It works best for Rebels who enjoy playful contact and may show a lively expression on the face. “Hey what’s up? I dig your style…”

Up to this point, the researcher has explained that different personalities have unique strengths, needs and favored channels of communication. The final component to understanding the basics of PCM as it applies to this research is the idea of distress. To refer back to the example about the emergency first responders—if they are not talking on the same channel, they are not communicating effectively. At some point, if they do not successfully communicate, they will likely become frustrated. Dr. Kahler’s discussion of distress in PCM describes what frustration looks like at three different levels when played out by each personality type. Continuing with Dr. Kahler’s condominium analogy, when a person initially becomes distressed, she stands in the doorway of the basement of her condo (Pauley et al., 2002, p. 30). When the stress persists from minor to major
distress, she will move to the basement, then deeper, down to the cellar. At each level of distress, a person engages in certain predictable behaviors according to their phase or base personality (Pauley et al., 2002). For the purpose of this research, the distress signals of Rebel and Promoter personalities will be described in more detail than the other four personality types. The participants in this study exhibit strong Rebel and/ or Promoter characteristics, so the researcher is most interested in understanding how to bring those two personalities out of distress. The following information is taken from (and one may find the distress signals and interventions of all six personality types in) Pauley, Bradley and Pauley’s book, *Here’s How to Reach Me* (2002).

- Rebels in distress: “Tap their desk, get out of seat without permission, usually to visit someone, drop items, whine, complain, are stubborn, want their own way, would rather give up than persevere if work is too hard (p. 134).”

- Promoters in distress: “Get out of seat without permission, take a discussion off-task, leave group members with all the work to do, refuse to do homework, blame others, make a fool of others, act like the rules do not apply to them, lie, create drama between two people, turn the tables in a crisis where they might look bad (p. 138).”

Perhaps these characteristics sound familiar to the reader. Such behaviors can show up in a student, child or adult at any age, prior to, during or after any stressful situation. The following study explores preventative and responsive techniques to handling such situations.
Purpose of this Study

The current research takes a look at using the Process Communication Model (PCM) to improve student behavior, but from a different perspective than other studies of PCM. There is very little information in the research for using the PCM with elementary students who have moderate to severe disabilities. Oftentimes, students with significant developmental limitations experience great challenges in communicating. Some students with severe autism do not speak at all, and other students with cerebral palsy or Down syndrome can speak, but with some difficulties. Such seemingly significant delays may deter one from conducting a communication study with those individuals. In all cases, however, even students with disabilities have personalities—well developed ones, in many cases! Furthermore, because of these students’ inability to express themselves clearly, behavior challenges may abound all the more than students who can speak their feelings or needs. In this study, the researcher acknowledges that these students have strong personalities and in a few cases, strong ways of conveying what they want and need. Thus, where there is a personality and an attempt to communicate, the Process Communication Model can be applied. The rationale behind this study echoes those of previous studies: speaking to someone’s personality can improve communication, and thus, a relationship with another. The only difference in this case is PCM is being applied to the population of elementary students with moderate disabilities instead of middle or high school students with mild or no disabilities. The next step after this research, of course, would be to teach these students how to communicate their needs in appropriate ways to the people who interact with or take care of them. As the reader will note in the
next section, all of these attempts to communicate and to meet the needs of students is ultimately to improve one’s ability to relate to others in positive ways.
Chapter 2

Review of Literature

Process Communication in Education

Teachers wear many hats in the educational field today. Although they entered college hoping to learn how to organize and execute informational lessons for ideally willing students, they entered the job force realizing they need more tools than SDAIE strategies to help them through the day. Among those tools is a strategy that intersects psychology with education: the Process Communication Model ® (PCM) for teachers. The literature regarding the use of PCM in educational settings is a growing one, since its inception almost two decades ago. In the midst of high-stakes testing and quantitative measures used to evaluate student knowledge and teacher abilities, a growing amount of studies regarding the effect of teachers’ personalities and interactions on student achievement is working its way into the dough of educational research.

The first teachers to use PCM in the classroom began learning about the concept in 1987. Since then, a plethora of studies have been conducted that show the effects of applying the psychological tenants of the six personality types to both students and teachers in the school setting. What follows are a description of several important PCM studies.

Gilbert (1992) describes the results of an entire school district being trained in the tenants of the PCM. According to personnel reports, “employee turnover was reduced by over 30%, the failure rate of middle school students reduced almost 20%, discipline referrals went down to 2% or less per day and students entering college increased at least
20%” (p. 32). Given that information and his understanding of PCM, Gilbert concluded that if students have different personalities than teachers, there is a likely chance that miscommunications will happen in the classroom. He expanded on this logic to explore how the behaviors of each of the six personality types would clash or mesh with each other in teacher-student relationships, which would be explored and confirmed later by other researchers (Bradley 2007; Pauley et al., 2002). For example, a teacher with a base or phase personality of “Feeler” will say and do things so differently than a student with a “Rebel” personality that the two may often find themselves having misunderstandings or worse, intense verbal conflicts. On the other hand, a teacher with a “Persister” personality base of phase might speak and act in a way that a student with the same personality can completely understand; thus, little or no conflicts will arise in that relationship.

Ultimately, Gilbert reemphasized the point that Kahler (1995) also made that teachers not only need to pay attention to “what” they are teaching (i.e. content), but “how” they are speaking and acting. This idea has become so common over the years that people have even made bumper stickers to express the idea; namely, “It’s not what you say, but how you say it.”

Another study that captured the attention of researchers in PCM was Gilbert’s (1994) study of what personality types most teachers exhibit. His research of almost 300 teachers in Arkansas revealed that “most teachers are any combination of Reactors (Feelers), Workaholics and Persisters” (p. 251). These findings laid a foundation on which later researchers would build arguments that teachers with these personalities may lack significant connections and communication abilities.
with the other three personality types who tend to “act out” more in classrooms: Dreamers, Rebels and Promoters (Bailey, 1998). Gilbert (1994) wrote:

The PCM provides the keys to opening the right doors. Knowing what preferences various types of individuals have and what happens when they are distressed can furnish useful information for positive interaction – provided [teachers] can get into their “elevators” and move into another’s frame of preference (p. 254).

This key finding that teachers who use PCM may be more able to relate to different personalities better than teachers without this knowledge is echoed throughout the PCM education literature in later years. A majority of Gilbert’s research, however, emphasized the need for teachers and administrators to understand their own personalities and how the communication that results from their personal perceptions can help or hinder relationships on school campuses. Donlan (2009) and Weisenback (2004) also discovered the benefits and drawbacks of administrators’ personalities on school environments in Michigan. Although such studies are pertinent to the topic of PCM, they focused on communication between teachers and administration more than on elementary students, which the next researcher fulfilled in her investigations.

Martin (2001) conducted a study in Arkansas that focused on the causes of teacher-student miscommunications in the classroom. Her emphasis, which resonates with Appold’s research in 2006, focused on the idea that if teachers know their own and their students’ personalities, less miscommunication will happen between them. Martin’s study included forty teachers who volunteered to participate and forty-seven students
who reportedly had behavior challenges in class. The teachers in the study took Kahler’s Personality Pattern Inventory (PPI) and took pre-test data on behavior problems of the forty-seven students. After a period of using the tools of PCM while interacting with the students, Martin (2001) found that significant behavior improvements occurred when teachers communicated with PCM (p. 68). She also mentioned other research that determined similar findings as hers, which concluded that “communication skills were prioritized as the most important and most frequently mentioned professional characteristic… of sixty teachers dealing with students with behavior problems” (p. 33). Similar results were found in studies with middle and high school teachers when they implemented PCM to meet the needs of their most challenging behaved students (Shioji, 2004; Sheehey, 2009). As Savage (1991) deduced from his studies, “Learners who feel that their needs are being met in the classroom seldom cause discipline problems because interfering with something that is meeting a need is contrary to their self-interest” (p. 39).

In addition to teachers using PCM to increase positive behaviors among students, some studies have shown that students’ academic achievement improves as well. As referenced earlier, Shioji (2004) conducted a study on two of her high school classes. She was trained in the concepts of PCM and applied them to one of her classes (experimental group), while teaching the same as normal for another class (control group). In particular, she made sure to provide fun, active and creative lessons for her experimental class, to meet the often overlooked needs of students with Rebel and Promoter personalities therein. She also met individually with the students in the experimental group to let their needs be known and to show that she cared for them. As a result of using PCM and
making personal contacts with her experimental group, her post-tests revealed an increase in student motivation and grade for the experimental group, while no students’ grades improved with the control group that term. This example stands in minor contrast to another study by Hawking (1995), who researched the effects of fifteen middle school teachers using PCM in their classes. In this case, the experimental group consisted of a group of teachers who had attended a two-day workshop in PCM and the control group received no training in PCM. At the end of the term, the results yielded no significant increase in achievement, only a minor improvement of the females’ grades. Hawking attributed the insignificance of the results to the possibility that the “teacher application of the Process Communication training may not be consistent, therefore producing varied results in student achievement” (p. xii). Additional studies of the use of PCM in education may be found in the book written by Pauley and colleagues (2002), *Here’s How to Reach Me*.

**Student-Teacher Relationships**

Amidst the high-stakes testing era in which educators find themselves these days, a growing amount of research builds around the idea that student-teacher relationships have a significant impact on student’s wellbeing and motivation (Van Petegem, Aelterman, Van Keer, & Rosseel, 2008). Of these studies, Van Petegem and colleagues specifically focused on how student-teacher interactions contribute to a student’s positive emotional state. Since someone’s wellbeing was difficult to obtain quantitatively, the researchers used a variety of questionnaires to obtain data. Such instruments included the Wellbeing Inventory of Secondary Education (WISE) and the Questionnaire on Teacher
Interaction (QTI), both of which were validated and determined to be reliable measures of the subjects at hand. Results showed that “when students were asked about their viewpoint, they felt appreciated” (p. 283). This type of communication, initiated by the teacher, suggested an openness and acceptance toward the student, which can contribute to one’s wellbeing. Regarding student motivation, the results from Van Petegem and colleagues showed that students who wanted to learn and found school interesting scored higher on the WISE inventory than those who felt obliged to attend school (2008). These researchers refer to many other studies that revolve around this same idea—that meeting the students’ motivational needs in positive ways will increase a teacher’s ability to reach all students (p. 281). Also noted in that study was that, to a certain extent, the teacher’s teaching style affected student’s wellbeing. For example, the teachers in the study who provided structure, yet some flexibility decreased stress and anxiety for students. One could logically reason that using both structure and flexibility in a class would meet the needs of students who need order as well as some relax time. On the other hand, the researchers’ surveys showed that students’ wellbeing lowered with teachers who were “less tolerant and less helpful” (p. 289). The final conclusion of this study conducted by Van Petegem and colleagues, which reflected similar facts as other studies (Gilbert, 1999; Klem & Connell, 2004) was that cooperation is an essential factor that bridges positive teacher-student interactions, and such interactions can contribute to a student’s wellbeing at school (2008). Thus, research shows that student motivation and wellbeing are affected by their relationship with their teacher. From this, one can deduce that a child’s emotional state cannot likely be harmed by positive interactions with teachers at school.
Other researchers, Hughes and Kwok (2007), discuss the implications of student-teacher interactions on student academic achievement. They make reference to at least five other studies in this area alone (p. 39). In their study, Hughes and Kwok make the common claim that “students who have positive relationships with their teachers enjoy increased achievement in early elementary years,” but also that students who achieve well to begin with are favored by the teacher from the start (p. 41). Following closely alongside with the precepts of PCM, Hughes & Kwok reiterate the point made by other researchers as well: “Given teachers’ preference for students who are conscientious, conforming, and self-regulated, it is not surprising that the relationship between engagement and teacher-student relationship quality appears to be reciprocal” (p. 41).

Simply put, the more a student pays attention to and complies with a teacher’s instruction and requests, the better that teacher will like or appreciate that student— and most likely, the better that student will achieve in school. On the other hand, if a student is off-task or not paying attention to the teacher, that teacher might have a difficult time enjoying or wanting to build a relationship with that student. This statement agrees with the conclusions of Gilbert (1999) and Pauley and colleagues (2002), that since most teachers have the Reactor (Feeler), Workaholic (Thinker) and Persister personalities within them, they will get along with students who are like them: compassionate, responsible, and conscientious. Such situation makes one logically conclude that these students would experience more success than students who had the opposite characteristics or experiences at school. Thus, to help improve student-teacher relationships with both students who are similar to and different than the teacher, it can behoove teachers to
understand how to speak to all students’ personalities. Bradley (2007) appropriately states that “when teachers use their knowledge of the personalities and preferences of their students, student motivation increases, behavior improves and achievement is higher” (p. 29). She would suggest that such knowledge and application of the PCM concepts could make the difference between an unforgettable year of success or struggle.

The connection between student achievement and positive relationships also extended to the parents’ relationships with teachers. Hughes and Kwok (2007) gathered a sample of 443 students in the first grade and employed a variety of reliable and valid instruments with which to gather data. They used the Woodcock-Johnson III (WJ-III) to measure the child’s academic status, the Spanish version of the WJ-III for the Spanish-speaking participants, the Big Five Inventory (BFI), which measures personality traits, the Teacher Relationship Inventory (TRI), a self-made questionnaire for the parents to complete, and an adjusted version of the Class Play scale. Results from their data analyses showed that “early elementary students gain more in achievement when they and their parents experience supportive relationships with teachers” (p. 46). One explanation for this is that students who feel liked by their teachers may try harder, may want to pay attention to the lesson more, and may follow the rules more, which affords them more time to work on academics than on disciplinary measures. Such results reflect a large group of growing research in the area of improving student-teacher relationships to improve school test scores and individual child’s grades.

Such studies have provided a balanced contribution to the “number crunching” that results from administrators trying to assess a teacher’s or a school’s quality on test
scores. By taking a look at the effect of the quality of school relationships on student wellbeing and academic achievement, one can get a more complete picture of the complex dynamics that contribute to this issue. Although these studies provide useful information, many of them focus on the teacher-student relationships of typical students—those without disabilities. The researcher intends to fill this gap with the results of the current study. Before exploring this unique relationship, a brief review of behavioral studies in education is worthy of mention.

**Behavior Modification**

Human behavior has been studied for many years, and with greater fervor, has made its way into the educational field in recent decades. Frith and Lindsey (1983) point out that since the Education of All Handicapped Children Act of 1975, the focus of using behavior modification techniques to help students with disabilities has since extended to students without disabilities. In their study, they surveyed forty-six middle school teachers and asked them to place negative behaviors on a continuum of severity. The results from Frith and Lindsey’s study showed the following behaviors were the most intrusive to instructional time: a student’s “lack of motivation, vulgar language, and trying to be the center of attention” (p. 274). The authors summarized these behaviors as “extroverted, apathetic, or disruptive” (p. 274). Such descriptions match, perhaps with less judgment, those qualities characteristic of PCM’s Rebel, Dreamer and Promoter (Bradley & Smith, 1999; Gilbert, 1999). That study laid a firm foundation for identifying common misbehaviors that negatively affect a school environment, but self-reportedly lacked any intervention strategies to solve the problem.
One behavior from the aforementioned study which was not mentioned as “the worst,” but clearly created a problem for the teachers surveyed, was noncompliance. Belfiore, Basile, and Lee (2008) describe noncompliance as “one of the most problematic behaviors in children with developmental disabilities” (p. 160). Belfiore and colleagues also reference many other studies that mention noncompliance as a problem with a number of students with disabilities (p. 160). As the authors note, with other behavior challenges, spending time trying to correct noncompliance takes teachers away from valuable instructional time.

Belfiore and colleagues (2008) used one branch of the Applied Behavior Analysis (ABA) theory, called high-probability command sequence (HPCS), to improve the behavior of a seven-year old boy with Down syndrome (p. 162). An example of HPCS is provided by the researchers to make the concept clear: let us imagine that a teacher wants a student to sit down. The teacher tells the student “sit down,” but the child appears to ignore the request and does not sit. In this case, there is a low probability that the student will respond to such a “boring” command, even if from a teacher. The HPCS technique tells the teacher to ask a child to do three fun or active tasks (clap your hands, touch your head, give me five) immediately before doing a low-probability command (i.e. sit down). By inserting a series of (fun) actions prior to the low-probability command, there is a higher probability of compliance among the student (p. 162). By comparing a series of low to high probability commands, the results showed that “the student’s average compliance increased by 65% the first round of interventions, by 68% the second round, and by 50% the third round of fading the high-probability commands” (p. 167). The
benefit of this study, although it cannot be generalized to the entire population of students with Down syndrome, provides a step-by-step guide to implementing the HPCS, which can be helpful for those researchers who hope to replicate a similar study.

A significant connection can be made between this study and the concepts of Process Communication. If a student responds positively to fun and active requests rather than to “boring” command-requests, the PCM suggest that person has Rebel or Promoter personalities. Furthermore, it is informally agreed upon by many education specialists that numerous students with Down syndrome do not respond well to direct commands and often want to do what they consider fun or interesting. Thus, one can infer that students with Down syndrome might have Rebel or Promoter tendencies. This categorization is valuable for researchers who wish to explore similar studies with their students with Down syndrome. If a teacher knew that she would have a higher probability of compliance among a certain type of student by asking him to engage in fun or active actions prior to a necessary but “boring” request, would she not spend the little extra energy to do the fun actions instead of spending excessive energy dealing with non-compliance associated with an undesirable request?

**PCM and Students with Down Syndrome**

Another study that explored the behaviors of students with Down syndrome was conducted by Coe, Matson, Russell, Slifer, Capone, Baglio, and Stallings (1999). Coe and his colleagues note that “Most investigations to date on behavior problems of children with Down syndrome have focused solely on description and prevalence” (p. 150). Trying to dig deeper than how often a behavior problem occurs, their research
focused on a possible cause of challenging behavior by children with Down syndrome. Why do students with Down syndrome often exhibit challenges to teachers? The instruments the researchers used included the Revised Behavior Problem checklist (RBPC), the Coddington Life Events Schedule, the Vineland Adaptive Behavior Scales, parent interviews, and teacher reports (p. 151). They compared 44 children with Down syndrome to 44 children without a disability and measured their life events, hoping to find a connection to behavior problems. In this study, “life events” include events in the life of children that can have a significant impact on their mental state (p. 150). The parents of the children with Down syndrome “reported more behavior problems than those without a disability, and had fewer life events than their counterparts” (p. 154). Although the research did not yield the expected results that students with Down syndrome have more behavior problems because they have more influential events occur in their life, the study confirmed that the behavior of students with Down syndrome needs to be studied in more depth.

Further information regarding the behaviors of students with Down syndrome can be obtained from the compilation of case studies reported by Feeley and Jones (2007). They review the long history of studies on students with Down syndrome and conclude “Children with Down syndrome are often described as ‘stubborn’ or ‘obstinate’… and show higher rates (than typically developing children) of attention problems, social withdrawal, non-compliance and compulsions” (p. 153). Such a reality warrants explanations for, or at least solutions to, the conflicts that can arise while having a student with Down syndrome in the classroom. The main reason that Feeley and Jones could find
for the cause behind these unique characteristics is that such behaviors are wrapped up in
their “behavioral phenotype, which is a unique pattern of strengths and weaknesses” (p.
153). For example, one might say that being strong-willed is a personality strength—such
a person will never be a “doormat” for another. Many students with Down syndrome
have this strength. Their unique weakness, in a sense, is that their will often remains firm,
even in the face of an authority figure who is in charge of their care and who disagrees
with their will. Fortunately for teachers and parents of children with Down syndrome,
Feeley and Jones applied common behavioral techniques to individual students with
Down syndrome, and discovered results that open the will of the student, while allowing
the wishes of the authority to be granted as well. One key finding that these researchers
found was that teachers who work with students who have Down syndrome need to
communicate frequently with the parents of the child. Many people with Down syndrome
have health issues that may include sleeplessness, which could negatively affect a
student’s performance at school the next day (p. 154). These researchers noticed in
working with one five-year old boy that he refused to do academic work when he had a
poor night’s sleep more than when he slept well the prior night. The intervention they
used included changing the student’s work from a worksheet to a kinesthetic game—still
targeting an academic concept, just targeting a different learning modality. The activity
kept the student interested and awake, while still teaching him the skill of counting (p.
154). Another benefit to this intervention was the increase in positive reinforcement
given to the boy. Since he enjoyed the work, he completed the task instead of refusing to
do it.
While working with another student, a three-year old boy with Down syndrome, Feeley and Jones (2007) found a similar behavior—task refusal—but for a different reason: transitions were stressful for this child (p. 156). The techniques used in this case included presenting a positive reinforcer (i.e. game or sticker) option for the student before the transition so that he knows he will obtain it after the transition is successfully completed. One intervention was not enough, however, so the researchers also implemented the strategy to “give the child a preferred item to distract him from the aversiveness of the request” (p. 156). In this case, the item created a fun job for the student to engage in (blowing the whistle) while the difficult transition had to be made. In addition to these strategies, the researchers also mentioned offering choices to the boy or engaging in high-probability commands prior to the challenging period of transitions. Finally, sometimes just doing the difficult task with the student (i.e. “let’s turn off the computer together so we can go to the counting center”) yielded positive results (p. 156). The researchers emphasized that success in all strategies depended on the teacher’s ability to use them in proactive, rather than reactive ways. Finally, one word of advice these researchers offered to both parents and teachers was to work on challenging behaviors as early as they begin, so that they do not become habits for students with Down syndrome or other disabilities.

Other research in the behavioral studies field points toward classroom environment having an effect on student behavior, and vice versa. Van Petegem and colleagues (2008) testified that either positive or negative student-teacher relationships can play a significant factor in creating a classroom climate. Similarly, Pauley and Pauley
(2007) suggest that if teachers use the precepts of PCM, then “students will get their needs met,” the classroom will be a positive place and “disruptive behaviors will decrease” (p. 194). Based on the research in PCM, student-teacher relationships and behavior challenges, the question remains: can PCM improve student-teacher interactions and thus, decrease negative student behaviors—particularly in the relatively unexplored arena of students with moderate to severe disabilities?
Chapter 3

Methodology

The question that this study seeks to answer is: Does a teacher’s use of the Process Communication Model principles and practice help decrease challenging behaviors for target students with moderate disabilities, inclusive on two students with Down syndrome, whose behavior suggest that they are Rebel and/or Promoter base or phase personality types? More specifically, the researcher wants to determine, when she speaks to her Rebel and Promoter students in playful and active ways, if they will engage in and complete tasks more willingly and follow directions without exhibiting negative behaviors.

Project Design

A single subject baseline-intervention design was the method used to answer the research question and attempt to discover a relationship between teacher communication style and student behavior. This research was both qualitative in that student behaviors were observed throughout the day, with descriptive observational notes recorded. It as also quantitative in nature, in that data was kept regarding the frequency of certain behaviors of the target students. The observed student-teacher interactions specifically focused upon the student’s behavior in response to a certain teacher action, communication style or event (antecedent). Thus, beyond the question of how many behaviors occurred in a day, the researcher looked at why certain behaviors might occur in relation to the time of day, the teacher request, the classroom setting, or an unseen internal antecedent (e.g., being tired or not feeling well). The first phase of data collection
– the baseline phase - included the recording of the baseline antecedents (A), behaviors (B) and consequences (C) whenever a problem behavior occurred. The second phase of data collection – the intervention phase - consists of the same A-B-C data collection and also included the teacher’s use of the Process Communication Model language, channels and teaching strategies with the student participants. Due to the small sample size in this study, the results cannot be generalized to the larger population of students with severe disabilities. But the study may provide a guide for other researchers to follow and conduct similar studies.

**Participants and Setting**

The setting for this case study was a special day class in a suburban public school in Southern California. The students in this class had moderate and severe disabilities and ranged in grade levels from Kindergarten to second grade. There were nine students in the class. Their disabilities included autism, orthopedic impairments, Down syndrome, and other health impairments. The purposive sample for this study were three students in the researcher’s classroom, two with Down syndrome (pseudonym names: Rick and Shelley) and one with muscular dystrophy (pseudonym name: Tom). Only these three students exhibited Rebel and/ or Promoter personalities, as determined by the researcher’s observations of their personality strengths (i.e., spontaneous, creative, playful for the rebel; charming, adaptable, persuasive and resourceful for the promoter), needs (i.e., playful contact for the rebel; incident for the promoter.) and behaviors when in distress (i.e., for the rebel, getting up and off task, getting attention and connecting with others and getting out of work that is not fun; for the promoter, getting the class off
track, stirring up controversy to get action, seeking to be the center of attention, or refusing to do work). Thus, the students in the study were selected by their personality type, with associated strengths, needs and distress patterns. These students were the best examples available to help answer the research questions, because they exhibited refusal behaviors, resisted direct commands or certain activities, or spent time off-task. Since the other four personality types do not display such behaviors in normal times or in distress, the researcher confidently determined the students’ personality types as rebels and promoters.

As a reminder to the reader, Rebel characteristics include being creative, playful and spontaneous. They need playful contact with people or materials throughout their day and become bored with routines over time. In distress, they act confused or blame others. Promoters are adaptable, resourceful and charming people who want teachers to get to the point or to show them the reason behind an activity. They need incidence throughout the day and are usually kinesthetic learners who have a difficult time sitting for a long time. In distress, they might act like the rules do not apply to them or may try to create negative drama between people and enjoy watching the consequences to follow. If working in a group and distressed, they may abandon the team to lead them to work on their own.

All three students in the study would be considered as having moderate disability performance levels. None of the students required assistive technology to communicate, so all students were minimally verbal. Rick was a 5-year old Kindergarten boy with Down syndrome. He spoke in 3-5 word sentences, often unintelligible, and entered the class 21 days after school started. Rick was independent in feeding, yet needed assistance
toileting. He often engaged in non-compliant behaviors as a result of staff commands and transitions—especially those from preferred to non-preferred activities.

Shelly, was a 6-year old girl in the first grade, who also had Down syndrome. This was her second year in the classroom and she also spoke in 3-5 word sentences. She frequently fidgeted with her hands and would leave large group seated activities without permission to look for items to play with while sitting. She was independent in feeding and toileting.

Tom, a 6-year old boy with Duchenne Muscular Dystrophy, was the final participant in this behavior support study. In addition to his qualifying condition, he had an attention deficit, which although was not officially diagnosed, was confirmed by both parents at home and staff at school. His ability to speak entailed 1-2 word phrases. As a result of the regressive effects on his muscles due to his condition, he had an instructional aide (paraprofessional) assigned to him to help keep him from falling down as he maneuvered the classroom and campus. He exhibited independence in common life skills and often displayed a hot temper, along with verbal and physical aggression toward others. It is worth noting here that aggression is a common symptom of this particular type of muscular dystrophy. Due to this situation, his data included one more component than the other students. In addition to studying his off-task and refusal behaviors, the researcher also noted his aggressive behaviors on a daily basis.

**Classroom Structure and Routine**

Beyond the physical aspects of the setting, the morning and afternoon classroom schedules are described to lay a foundation for the reader to understand the researcher’s
later discussion of why certain behaviors occurred at given times and whether or not teacher interaction occurred. Table 1 shows the daily schedule by time block, activity and staff present.

**Table 1. Daily Schedule**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:15-8:30</td>
<td>Creative Play &amp; Bathroom</td>
<td>All Staff</td>
</tr>
<tr>
<td>8:30-9:15</td>
<td>Morning Calendar &amp; Movement</td>
<td>Teacher, Pink Aide &amp; Students</td>
</tr>
<tr>
<td>9:15-9:30</td>
<td>Small Group Centers</td>
<td>Green, Blue, Pink</td>
</tr>
<tr>
<td>9:30-10:15</td>
<td>Snack, Recess &amp; Bathroom</td>
<td>All Staff</td>
</tr>
<tr>
<td>10:15-10:30</td>
<td>Alphabet Sounds Song &amp; Actions</td>
<td>Teacher &amp; Student</td>
</tr>
<tr>
<td>10:30-10:55</td>
<td>Small Group Centers</td>
<td>Green, Blue, Pink</td>
</tr>
<tr>
<td>10:55-11:15</td>
<td>Large Group Center</td>
<td>All Staff</td>
</tr>
<tr>
<td>11:15-11:25</td>
<td>Closing Circle</td>
<td>Teacher</td>
</tr>
<tr>
<td>11:30-12:30</td>
<td>Lunch &amp; Recess</td>
<td>Part Staff</td>
</tr>
<tr>
<td>12:30-12:45</td>
<td>Quiet Reading</td>
<td>Part Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mainstream: Tom Paraprofessional</td>
</tr>
<tr>
<td>12:45-1:00</td>
<td>Independent Work</td>
<td>Pink Aide</td>
</tr>
<tr>
<td></td>
<td>Tom Mainstream</td>
<td>Tom’s Aide</td>
</tr>
<tr>
<td>1:00-1:15</td>
<td>Phonics Video &amp; Spelling</td>
<td>All Staff</td>
</tr>
<tr>
<td></td>
<td>Tom Mainstream</td>
<td>Tom’s Aide</td>
</tr>
<tr>
<td>1:15-1:30</td>
<td>Songs &amp; Movement</td>
<td>Pink Staff</td>
</tr>
<tr>
<td></td>
<td>Tom Mainstream</td>
<td>Tom’s Aide</td>
</tr>
<tr>
<td>1:30-2:30</td>
<td>Mainstream: Tom &amp; Shelly</td>
<td>All Staff</td>
</tr>
<tr>
<td>2:35-2:45</td>
<td>Closing Circle</td>
<td>Pink Aide</td>
</tr>
</tbody>
</table>
As Table 1 shows, school begins at 8:15 a.m. After putting away their belongings, students immediately engage in two overlapping activities: creative play and bathroom. The playtime materials and toys are rotated every week to hold students’ interest, and are geared toward interactive play and constructing items. After playtime is over and the timer alerts the students to clean up, the usual procedure is for students to take a picture symbol from a bowl, which tells them where to go next - morning calendar. The morning calendar follows creative play and is a time when students are either sitting in chairs arranged in a half-circle, or dancing to a variety of calendar songs. Students take turns leading songs or help hand out materials. (Over half-way through the study, an opportunity opened up for Tom to attend morning circle with a general education class.) When the calendar time is over, the teacher or a student leads the others in a short series of activities meant to calm different parts of the body. Students are given picture symbols corresponding to the next activity: small group work centers.

Small group centers allow the teacher to split up students into three groups to focus upon 1) building fine motor (pink center), 2) reading (green center) and 3) math skills (blue center). The two class paraprofessionals handle the pink and blue centers, while the teacher, this researcher, leads the green center. Tom’s paraprofessional helps him or other students who need one-to-one assistance. Following a 12-minute work period, the alarm sounds to remind students to clean up and proceed to the line for snack and recess. During this time, students use the restroom, as needed or at the request of the teacher. When recess is over, students choose a shape card, which tells them where on the color/shape carpet to sit to listen to the letter sound song. Following this song, which
serves the purpose of transitioning students from recess back into work mode, the students are separated once again into small group work centers. The student groups remain the same for each center and they rotate through each of the three centers every day.

After two small group centers are completed, picture symbols in a bowl at each small group center show students to go to a large group work center, which includes any of the following activities, according to the day of the week: computer learning, art, fine motor and floor time, or cooking. Students take turns using the bathroom during this time as well. The final activity follows the large group center, which is the closing circle.

Kindergarten students are on a half-day schedule, so the closing circle provides a time to review what was learned that day, say goodbye to the Kindergarten students and prepare for lunch.

The schedule for the afternoon students is slightly different than the morning schedule. After lunch, students engage in quiet time, which includes a relaxing time of book reading on the floor and using the bathroom. Halfway through the data period of this study, a new routine began for a few students after lunch: mainstreaming to general education classes. One student, Tom, leaves with a paraeducator to attend a general education Kindergarten classroom during quiet time. He is a first grade student, but attends the general Kindergarten class because the work better matches for his IEP goals and his academic performance level. Following that activity, students work on fine motor skills at individual work stations and watch an interactive phonics video. After students practice spelling their names and other high frequency words, they engage in a time of
songs and movement. Following that activity, the remaining students visit other general education classes with aides or a teacher, where they stay for an hour. Prior to going home, students re-group in the special day class to review the day, gather their belongings and head to the busses.

Both the morning and afternoon routines are purposely structured to provide predictability and consistency for students who benefit from a predictable routine. Within the routine skeleton structure, some activities vary in an effort to keep learning interesting for students who need diversity in order to maintain motivation.

**Definition of Problem Behaviors**

Data was collected and reviewed by the researcher at the end of each week, according to the aforementioned categories of refusals and off task behaviors. Refusals took the form of both verbal and physical refusals. For example, the teacher might have given a direction and one student folded his arms while the other student ignored the teacher and continued her current task. Both of those behaviors were considered refusals, one by action and the other by omission. Off-task behaviors looked like any action besides the one required for the activity at hand. In some cases, it took the form of playing with one’s shirt instead of paying attention to the activity, or it also included playing with the work materials instead of using the materials for the purpose of the assigned task.

Although the time of each behavior was noted, the duration of the behavior was not noted. However, if a student refused more than one time per event, each consequent refusal was noted until the student complied with the task or adult direction. In most
instances, after three refusals, a student was sent to time out, which was also noted in the behavior records. If the student refused to go to the time-out seat, the teacher or instructional assistant turned around the seat of the student and when possible, placed a mobile room divider between the student and the activity. At the end of the intervention period, both sets of data: pre- and post-intervention were graphed, compared and analyzed.

**Data Collection Procedures**

Data was collected using an observational record sheet set up in an A-B-C format, which allowed for written descriptions of the antecedents, behaviors and consequences related to a student's behavior of concern. See the A-B-C data form in the Appendix. As the data form shows, spaces were provided for the day and time, to help the investigator make predictions and conclusions about certain behaviors at different times of the day, or days of the week. The items recorded included the following: 1) the antecedents (A), a teacher direction or a description of the setting prior to a behavior; 2) the student’s behavior (B) and the time the direction or event occurred; and 3) the student consequence (C) and teacher responses to the behavior.

Antecedents are external or internal events or feelings that precede and can cause or trigger a certain behavior. For example, an alarming noise may be the antecedent to a certain behavior that triggers that behavior in the student. During the baseline period, the researcher purposely did not go out of her way to set up the environment to make it conducive to Rebel or Promoter personalities. Similarly, teacher directions were monotone and teacher-directed and few choices were offered to students. After the
interventions began, the researcher purposely added more student-involvement during typically routine or difficult times for students (i.e. morning calendar, transitions or work centers), which consisted of a series of fun actions prior to a direction, a reward to look forward to if compliance was achieved, or a special job to do to transition other students to the next activity.

The dependent variable or problem behaviors (B) in this case study were the refusal and off-task behaviors of the students. Tom’s data included one additional component - aggression. The time and nature of occurrence of the target behaviors were observed and recorded during both pre- and post-intervention. The opposite of such behaviors—compliance and engagement in the task—also were noted when the behavior stood out as abnormally positive.

The consequences (C), or the staff member’s responses to a student participant’s behavior, were purposely different compared to baseline and intervention periods. During the baseline period, the staff’s response to an off-task behavior typically sounded like a reminder, “Eyes on teacher,” or “All done,” in a firm tone. Similarly, a consequence to a refusal might have been, “Try again” or “Do better,” in a non-emotional tone. Finally, a consequence to an act of aggression was often, “That’s not okay. Hands to self.” As stated earlier, if an off-task, refusal or aggressive behavior continued after a teacher gave the student three choices to follow directions, the staff member told the student to take a “Time-out” or turned around the student’s chair for 2-5 minutes. On the other hand, consequences after the intervention often included more praise, high fives or stickers for the absence of challenging behaviors. When refusals or off-task behaviors occurred
during the post-intervention period, the staff member almost always gave praise, knuckle explosions, or iPad to other students who were following directions, in attempt to extinguish the student’s non-compliance. As much as possible, the staff attempted to match the consequence to the behavior, to make it more meaningful.

**Baseline Conditions**

The researcher collected baseline data for a period of at most, 39 school days. This data may also be referred to as pretreatment data. The pre-intervention communication style of the researcher was direct, requestive and void of playful tones. On the same formatted data sheets, the intervention and post-treatment behaviors were recorded up to 20 days. Each student’s baseline data began on a different day, according to the availability of staff or student attendance. The researcher engaged in both activities throughout the school day: taking data and implementing the “treatments,” or interventions.

**Intervention Conditions**

The independent variable in this study is the researcher’s use of the PCM interventions as applied to either a Rebel or Promoter personality. A year prior to the implementation of this study, the researcher attended a three-day basic training in the concepts of the Process Communication Model that is especially designed for educators. This study gave the researcher a chance to put into practice the tools learned at that training.

The interventions consisted of any of the following for Rebel and Promoter personalities, according to the principles of PCM; namely, excited tone of voice, clear
directions, playful actions during transitions, creative or fun activities at work centers, fun noises during work times, opportunities to walk around the class to show off work, opportunities to perform or lead activities, kinesthetic movements during work, playing games that taught a skill, letting them do creative drawing as a reward for doing work, and high-probability commands prior to a direction, to name a few. During the intervention period, the intervention was noted in both the “antecedent” column of the data sheet, and in the “consequence” section as well. For example, if the antecedent of a playful tone was used while giving a direction and the student complied, the “consequence” also included playful contact, such as a high-five or arm-pump. Although the three instructional assistants were not required to implement the interventions with the students under study, they were given a list of ways to interact with Rebel and Promoter personalities and were encouraged to do so to help meet the needs of the participants.
Chapter 4

Results

In this study, the researcher hypothesized that using the tools of the Process Communication Model (PCM) with her three students who have Rebel and Promoter personalities would help meet their needs, and thus, decrease their challenging behaviors. Such behaviors included refusals (charted in blue), off-task behaviors (pink), and in one case, aggression (yellow). The interventions used, according to the principles of PCM, included changing the tone of voice when talking to students, utilizing fun or hands-on actions during activities, or altering the classroom environment. Unlike other studies, this one explored the arena of students with moderate disabilities and asked two questions regarding behaviors: how many, and why? Although the frequency of behaviors (how many) did not show a dramatic change in response to the researcher’s PCM interventions, the function of the behaviors (why) was determined from the analysis of the antecedents prior to the behaviors. Such information was useful for helping the researcher make a plan to improve the staff’s style of relating to students and classroom routine to meet the needs of each student more efficiently.

Baseline and Intervention Results for Rick

As stated earlier, Rick, a Kindergarten student, entered the classroom three weeks after school began. Since he entered later in the study than the other participants, his baseline data lasted 16 days and his intervention data extended another 16 days, for a total of 32 days of study. His data is different than the others’ in that he was absent for a week due to an illness, so there is a gap in his data between baseline days eight and ten.
The researcher began interventions for him on day 17 (noted by an asterisk on the graph), during week five of his attendance in the classroom.

**Figure 4.1. Rick’s Data**

Rick’s data show irregular peaks and dips throughout both pre- and post-intervention periods. The only noticeable difference between his baseline and intervention periods is that his off-task behavior seems to peak more often *after* the interventions began. In total, his off-task behaviors only averaged one a day (mean = 1.06) and his refusals averaged three a day (mean = 3.06). The most frequent behaviors observed consisted of refusals, which reached a peak of six a day during two days of observation, the first peak on a Monday and the next on a Wednesday. The highest peak in Rick’s off-task behavior actually occurred the day after intervention began, on a Friday, up to five times. That said, it is clear that Rick’s behavior “problem” was a minor one. All three participants did not exceed 10 negative behaviors in one day, so although
the participants were not “angels,” they exhibited only a handful of behaviors on a daily basis.

According to the anecdotal data notes, a vast majority of Rick’s refusals happened during transitions from preferred to non-preferred activities and within small group work centers, particularly the blue center. Refusals often included him saying, “No,” looking down and folding his arms, or pushing away the assigned work in front of him. Less instances of refusal, yet noteworthy, happened when Rick was asked to go to the bathroom or to go home. A great majority of off-task behaviors happened during morning calendar and less happened during small group work centers or the alphabet song. During large group centers, Rick’s off-task behaviors generally took the form of him sitting and not participating in the song or task. In small group centers, Rick’s off-task behavior looked like playing with the work materials or leaving his seat to talk to someone else in another center. Further analysis of Rick’s data is included at the end of this chapter.

**Baseline and Intervention Results for Shelly**

The data for the other student with Down syndrome, Shelly, show a moderate change between baseline and intervention periods. Shelly’s baseline data were taken for 27 days and her intervention data were recorded for 20 days, for a total of 47 days of observations. The researcher began the interventions on day 28 (noted by an asterisk on the graph), which landed within week six of her study. Prior to the intervention, Shelly experienced a large peak in off-task behavior (pink)—10 times, observed on a Wednesday. Her peak number of refusals (blue), also during the baseline period, reached to eight, which happened on a Thursday.
Table 4.2. Shelly’s Data

<table>
<thead>
<tr>
<th>Days Observed</th>
<th>Number of Observed Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
</tr>
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<td>8</td>
</tr>
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<tr>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
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<td>47</td>
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* Intervention began

In total, the average refusals seen by the teacher reached almost two a day (mean = 1.62). On a similar note, the average number of off-task behaviors amounted to a little over two a day (mean = 2.13). The graph in Figure 4.2 shows that, during baseline data, refusals happened more often than off-task behaviors; whereas during the intervention period, refusals occurred less frequently than off-task behavior. Nonetheless, off-task behavior remained a constant issue throughout both baseline and intervention periods.

Shelly’s anecdotal notes reveal consistent pictures of how her refusals and off-task behaviors manifested themselves. Almost every act of refusal entailed her showing no response to what the staff member asked, often looking away, or plainly saying, “No” to the request. Refusals often happened during the large group morning calendar or when a preferred activity had to end. A few times she refused tasks at small group centers. Her off-task behaviors included any of the following: touching parts of her face, playing with her shirt or taking off her shoes. A vast majority of such behaviors appeared during
morning calendar, and less times during other large group activities (i.e. Alphabet song, closing circle, or phonics video). The researcher’s analysis of Shelly’s behaviors is found at the end of this chapter.

**Baseline and Intervention Results for Tom**

Quite a lively character, Tom stands out differently than the other two students. First, the researcher charted one additional behavior: his acts of aggression, in addition to refusals and time off-task. Second, his behavior was recorded for the longest period of any participant—54 days. His baseline began before the other two students and lasted 38 days. His intervention began on day 39 of the data (noted by an asterisk on the graph), at the beginning of week nine of his observations, and lasted another 16 days.

**Figure 4.3. Tom’s Data**

At the beginning of the baseline period, Tom’s aggression and refusals simultaneously peaked and dipped the first few weeks. Off-task behaviors were not much of a problem
for Tom, compared to his aggression and refusals. It is important to mention that his refusal and off-task behaviors each averaged less than one time (mean = 0.56) a day, over the 54 days. The most refusals the staff saw were four a day (Tuesday), and the most off-task behaviors the staff witnessed were seven times in one day (Monday). His average acts of aggression happened over once a day (mean = 1.55); the most being nine times in one day, a Friday, and the next highest eight times in one day, on a Monday.

Tom’s anecdotal baseline notes show that almost all of his off-task behaviors (pink) happened during morning calendar or the phonics video and entailed his talking out of turn or imitating another student’s involuntary actions. His refusals (blue) often occurred when asked to share a toy with another student or to leave a preferred activity and enter a non-preferred activity. Less often, he refused to eat his food at snack or lunch. The aggressive behaviors (yellow) Tom displayed were often a result of another student’s actions or noises and were geared toward those students.

**Incidental Observational Results**

Most noteworthy is an unexpected result from Tom’s data. The day that the interventions began (Monday) also aligned with the day an opportunity opened up for him to join a general education kindergarten classroom for two sessions per day: the morning calendar and the afternoon hour of group stations and independent work. Comparing his behaviors prior to that Monday and after that Monday yields astounding results (see Table 2). Prior to this intervention, Tom showed dramatic peaks and valleys in all three behaviors, the most dramatic being his aggression. After joining the mainstream kindergarten schedule, his behaviors dropped to 0-1 per day, with the
exception of aggression 2-4 times on different days. Aggression during those peak days after the intervention occurred either during the kindergarten recess or in the moderate/severe classroom setting. As Table 2 shows, his intervention refusals decreased one-third of his baseline amount. His off-task behaviors decreased to one-sixth of his baseline average during the intervention period. Furthermore, many of his challenging behaviors dropped to zero for multiple days in a row during the intervention time of inclusion with typical students. Out of all three participants, this change in intervention data is the most dramatic and perhaps, surprising.

**Table 2. Tom’s Baseline vs. Intervention Data**

<table>
<thead>
<tr>
<th>Behaviors per day</th>
<th>Baseline average</th>
<th>Intervention average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refusals</td>
<td>$\bar{x} = 0.79$</td>
<td>$\bar{x} = 0.25$</td>
</tr>
<tr>
<td>Off-task</td>
<td>$\bar{x} = 0.82$</td>
<td>$\bar{x} = 0.13$</td>
</tr>
<tr>
<td>Aggression</td>
<td>$\bar{x} = 2.05$</td>
<td>$\bar{x} = 0.75$</td>
</tr>
</tbody>
</table>

A closer look at Tom’s data shows that his environment influenced his behavior more than a staff member’s interactions did. His anecdotal notes show that while in the general education setting, he faced fewer distractions, and thus, was less triggered to engage in challenging behaviors. In other words, the more his surrounding was under control, the more he was under control. However, the more distracting or noisy his surrounding was (i.e. either in the moderate/severe setting or at recess), the more he demonstrated challenging behaviors. Clearly, the general education classroom, although not a place of frequent playful contact, met a need for Tom to have order in his
environment. This begs the question as to the exact location of Rebel personality in Tom’s personality condo, and toys with the idea that he might have a strong Thinker type within him as well. Ultimately, Tom’s data points to the necessity for students with moderate/ severe disabilities to have well-behaved role models who willingly welcome them into their classroom family.

**Analysis of Data and Conclusions**

At face value, it appears that Rick did not respond to the PCM interventions. In fact, the graph in Figure 4.1 shows that Rick’s off-task behavior actually increased, instead of decreased (as hypothesized), after the interventions. Although the number of post-intervention refusals decreased down to once a day a few times, they often still averaged 3-4 times a day, which does not reflect progress. On the other hand, the anecdotal notes recorded on his A-B-C sheets show that during the baseline period, his refusals often occurred numerous times *in a row* during a given event. After the interventions, however, he often refused once, then the intervention would be applied, and then instead of continuing refusals, he would comply. However, his refusals would happen more frequently throughout the day. Thus, a pre-intervention refusal recorded 3 times often happened 3 times within 10 minutes, whereas the post-intervention refusals of 3 times included 3 times in 3 hours. For example, if at the green center, Rick refused to sing the ABC’s (which was routinely the first task at that center) his baseline response would be to refuse the work and sit with his head down for the next few minutes. After the intervention, however, Rick still refused to sing the ABC’s initially, but the teacher praised the other student for singing and asked Rick if he wanted to sing with her. He
then complied within 30 seconds. This discrepancy will be further discussed in the limitations section of this paper.

Was Rick going through a “No” phase, as many children do at a certain age? Or were the interventions still not meeting his needs? Although the former remains a mystery, the latter option can be supported by evidence. One thing the researcher is sure of is that if Rick did not see that the current or next task was going to include an activity that he enjoyed, or a reward that he found worthwhile, he refused to participate. For example, Rick thought it was especially fun to lead morning calendar activities. If he was not selected to lead all of the songs, he refused to participate in at least a few, according to his mood that day. In this case, the researcher and the other paraprofessional who alternately led those activities made a decision to give all students an opportunity to lead, not just Rick. This contributed to Rick’s continued refusals, even through the intervention period. Another time when Rick frequently refused to cooperate with staff occurred when he transitioned to the blue center, led by a paraprofessional with a different personality than Rick’s. Such circumstances may have influenced his continued refusals and off-task behaviors even during the intervention period, possibly because that aide did not adjust her language or activities to fit Rick’s Rebel/ Promoter personality type.

Why did Shelly continue to exhibit off-task behaviors, even after the implementation of the concepts of PCM? According to the anecdotal records, most of the off-task behaviors occurred during large group activities—morning calendar, computer/art, quiet time or phonics video. Even though the researcher employed a playful tone and demonstrated fun activities during each of those sessions (except quiet time), she did not
diversify the routine within those time periods and could not offer as much personal attention during large groups, so perhaps the repetitive nature of the activities and lack of personal connection trumped any attempted intervention. As the reader recalls, Rebel personalities not only need to be spoken to in emotive tones, but need playful contact with people or things and different activities employed to keep them interested. Thus, Shelly perhaps found herself bored and wanting for more one-to-one playful interactions in those large group activities.

Looking up close at the numerical data, the interventions of PCM made a small dent in Shelly’s behavior, no dent in Rick’s, and was almost irrelevant in Tom’s data. Conversely, analyzing the anecdotal notes from the A-B-C data charts showed which specific interventions worked well for each participant, and helped the researcher make a plan to foster positive behaviors and relationships among her students in the future.
Chapter 5

Discussion

Summary of Study

This research intended to support the behaviors of three students in a primary moderate/severe special day class by using the concepts and tools of the Process Communication Model® (PCM) to interact with each personality more effectively. The specific personalities under study were those that PCM refers to as Rebel and Promoter types, who typically exhibit challenging behaviors in traditional classroom settings. After a period of baseline observations and recording of behaviors, PCM interventions were applied by the researcher. Although the numeric results show only a minor success overall, the researcher ended up forming deeper and positive relationships with each student, which shows significant success on the qualitative side of this study.

Limitations

There were several limitations in this study, the first being the sample size. For the purpose of the study, the researcher could only select students who demonstrated characteristics of the PCM descriptions of Rebel and Promoter personalities. Due to time and money constraints, the researcher did not select other students who exhibited similar tendencies from the school site or within the district, which also kept the sample size small. Thus, only two out of six personality types qualified for the study, and in the researcher’s classroom, this meant three out of nine students. As stated before, since the sample size was small, the results cannot be generalized to the larger population.
Other factors that limited the current study were the research conditions. First, the number of weeks that student observations were recorded was limited by time constraints beyond the control of the researcher. The longest period that baseline data was recorded lasted six weeks. The intervention period for each student did not exceed four weeks. In order to ensure greater credibility to the study, the researcher would have preferred to collect baseline and intervention data for at least eight weeks each period, for a total of 16 weeks. Second, although the three other staff members were introduced to the concepts of PCM and were given directions about how to interact with the participants according to their personalities, the researcher had little control over the paraprofessionals’ behaviors with the students.

Finally, a built-in limitation to this study includes the students’ inability to communicate the inner workings of their bodies and minds. These students have moderate disabilities and thus, have difficulty realizing their own physical or emotional state, much less describing it in words or pictures to the staff. Therefore, if a student had three challenging behaviors in a row and the staff asked, “What’s wrong, Rick, are you feeling sick today?,” the student could not answer with clarity if, or why, he was having a hard time. In such a case, the next best thing to do would be to ask the parents how the students are doing every morning, in order to have a clear idea of what behaviors to expect from them that day.

In the research conducted by Feeley and Jones (2008), one factor they discuss regarding the care of students with Down syndrome in particular is communication with parents. Since children with Down syndrome have higher rates of irregular sleep patterns,
they emphasize that the importance of communicating with parents cannot be underestimated (p. 154). In the current study, the communication between teacher and parents for both students with Down syndrome was limited. At a parent conference, for example, Shelly’s mom reported that Shelly either hid or threw away the classroom-home communication journal provided for her by the teacher. When Shelly’s mom replaced it with another journal, Shelly found a way to eliminate that one as well. An easy solution would be to call Shelly’s mom and ask about Shelly’s sleep the night before; however, the problem the staff faced was Shelly’s mother worked nights and returned home after Shelly has already left for school. Talking to Shelly’s adult sister, who watched over her at night, was unsuccessful. Thus, if the staff had better knowledge of Shelly’s sleep the previous night, the interventions could have been adjusted to fit her situation more appropriately.

More relevant to the issue of communication with parents is Rick’s situation. At the time of the study, Rick lived with his relative—a single mother with six other children. That said, any attempt to contact Rick’s caregiver resulted in unreturned messages or lack of access to her phone mailbox. In some cases; however, it was clear to the staff that Rick did not have enough sleep, and it was on those days that, according to Feeley and Jones, the staff could have “decreased academic demands and increased access to highly preferred activities” (p. 155). If lack of sleep was ever a problem for Rick, staff would have best met his needs by modifying his workload for that day instead of pushing him to work, thus, facing more resistance.
Discussion and Conclusions Regarding Results

The analysis of the results briefly mentioned the possible functions of the student participants’ challenging behaviors. Such possibilities included for Shelly and Rick: boredom with the same routine, a lack of playful interactions with people or objects, a lack of physical involvement in the activity, and a lack of awareness of a future reward awaiting them after doing a non-preferred task. For Tom, the function of his off-task behaviors may also have been a result of boredom with a large group activity, and the reason for his refusals were clearly often due to a teacher request to end a preferred activity. His aggression was mostly triggered by the actions or noises of other students, which bothered him. In the end, Tom felt most comfortable in a setting filled with hands-on activities and fewer distractions—a general education kindergarten classroom.

After taking a closer look at what interventions were lacking in the study, it is equally important to look at what interventions worked best for each student. For Rick, the interventions that yielded the greatest success were the following: letting him hold the timer and telling other students to transition to the next activity; letting him interact with a puppet dinosaur during morning calendar and with a tennis-ball friend (tennis ball with a face carved into it) at small group centers; letting him lead calendar songs; letting him leave a small group center to show off his work; using a positive tone of voice when he made a mistake with a task; using fun hand signals like high fives and arm pumps when he did a good job; assigning him a student he can gather at the end of recess or assist in packing his backpack (to distract him from leaving recess or going home, both non-
preferred activities for Rick); letting him work for the iPad; and showing him a picture schedule of an upcoming fun activity.

The interventions that worked best for Shelly included: letting her pass out transition cards to direct students to the next activity; letting her lead calendar songs; letting her lead hand signals during the phonics video; letting her work for the iPad; letting her know that we will help her clean up and do it together; letting her hold our hand while walking to the next activity; letting her help other students with their work; giving her a choice about what type of materials to use for a given task; and giving her an acceptable fidget to play with during morning calendar time. Such interventions are not entirely different from those employed by other “behavior modification” programs. The main difference between these interventions and those from other studies is that these sought to meet a need and use the strengths of a particular personality type.

**Delimitations**

Two major delimitations of the study revolve around the data collection sheets used and the means of recording data during the research. As stated earlier, the researcher primarily focused on the frequency and function of the behaviors instead of the intensity and duration of each behavior. This limited the data collection in that a 30-second refusal was noted as equal to a 5-minute refusal. Had the researcher used a different data sheet—perhaps one that segmented the daily schedule into timed chunks—the data might have shown a clearer picture of how long each behavior lasted.

Another related issue in data collection was the person recording the data. In addition to leading activities and monitoring the progress of the IEP goals of six other
students, the researcher also recorded the behaviors of two student participants, each in separate work center groups during the day. (Tom’s support aide helped the teacher record his data.) As a result of this multitasking, the researcher may not have clearly caught every behavior displayed by the students under study. Although the researcher made concerted daily efforts to ask the paraprofessionals what kind of behaviors occurred when the students were not in her sight or reach, her multiple duties throughout the day could have clouded the quality of data recorded. A better way to approach a similar study would be to assign a paraprofessional to cover as many teacher duties as possible, which would allow the researcher to give full attention to the student participants. Other ideas for future studies will be mentioned in the next sections.

Next Steps

For many people, it is difficult to learn a new language. Some pick it up easily of course, but many need to practice for hours, days and weeks to become comfortable with a new way of communicating. So, too, was it difficult for the researcher in this study to step into the shoes of a Rebel or Promoter personality and communicate effectively. One task that the researcher intends to do as part of a continuing plan to interact successfully with those students and staff who have different personalities than hers is to keep practicing. This may take the form of talking to educators with Rebel personalities and asking how they prepare for or respond to challenging student behaviors. Another way the researcher will continue practicing the principles of PCM is to offer a hands-on, week-long training for the staff regarding how to relate to Rebel and Promoter personalities. Such training can create more clarity and unity within the staff team
regarding a vision for implementing the concepts of PCM. The more staff members who know how to relate to students who need playful contact and movement, the more likely such actions will become a way of life for everyone in the classroom.

The most important “next step” is to continue working on relationships with students and experiment with new “Rebel norms” in the classroom. This might mean allowing for more flexibility and diversity in classroom activities, and then taking notes regarding student reactions to proposed changes. This must be carefully planned out, however, because the students in class who have autism often desperately rely on routines to maintain calm behaviors. When the researcher finds places in the schedule to change a routine, she will be sure to let it only affect the students with Rebel personalities. Another idea includes teaching Rebel students how to ask if they can leave their seat to show off their work. Or, new norms might look like teaching the staff to let a student stand while working, if that will help him concentrate. Furthermore, accessing web sites with creative twists to ordinary art activities will not only behoove the Rebel students, but could refresh all the staff’s ability to think “outside of the box.”

**Future Research**

Finally, by studying the concepts of PCM in greater depth, the researcher can apply her skills to meet the needs of diverse students. Although the researcher attended a beginner’s training in PCM, she can take an advanced course to become a trainer for PCM for educators. By furthering her skills in the application of PCM to classroom settings, she will not only improve relationships with her students, but possibly teach other educators how to interact with students who have different personalities as well.
Many researchers, both in the educational field and beyond, often begin a study hoping to find results. Especially in this test-driven age, teachers want the results to show higher numbers of good things happening and lower numbers of negative things occurring. Much to this researcher’s chagrin, the results yielded small or stagnant numeric success. At the PCM training for educators, the researcher asked the presenters, “Are we not just trying to manipulate someone by speaking to their personality so they act a certain way as a result?” To that, the presenter said, “If we knew how to meet someone’s needs, would we not want to do it?” (Pauley, 2012). Such was the case in this study. The researcher set out to create more positive behaviors among three students who exhibited challenging behaviors, and to some extent, that happened. At the finish line, however, the end result was more profound: the teacher grew in understanding how those students think, what motivates them, what bothers them, and what pleases them. In the attempt to try to change the students because they caused “challenges” to her, the researcher found a deeper appreciation for their unique and playful contribution to the lives of all in that classroom.
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Appendix

A (Antecent) – B (Behavior) – C (Consequence) Data Collection Form
## BEHAVIOR LOG

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<tr>
<th>Date</th>
<th>Time</th>
<th>Activity (Small group, whole group, Preferred/ non-preferred)</th>
<th>Behavior (what student did, how severe, how long did it last)</th>
<th>Consequence &amp; Response</th>
<th>(what did staff do, what did student get, how staff handled)</th>
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