7-1-2004

A study of the effectiveness of self-management as a form of behavior modification

Erica M. Predmore
Rowan University

A STUDY OF THE EFFECTIVENESS OF SELF-MANAGEMENT AS A FORM OF BEHAVIOR MODIFICATION

by
Erica M. Predmore

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Science in Teaching Degree
of
The Graduate School
at
Rowan University
July 1, 2004

Approved by _____
Professor

Date Approved _July 1, 2004_

ABSTRACT

Erica M. Predmore
A STUDY OF THE EFFECTIVENESS OF SELF-MANAGEMENT AS A FORM
OF BEHAVIOR MODIFICATION
2003/04
Dr. Marjorie Madden
Master of Science in Teaching

Behavior management is a major concern among educators. Effective practices for managing behavior are constantly being studied and tested. This research study focuses on self-management as an effective form of behavior modification in an inclusive classroom. This study is to determine if a self-management form of behavior modification will increase self-awareness which will in turn decrease disruptive behavior in the classroom. An intervention is implemented to determine its effect on the behaviors being studied. A goal of this study is also to contribute more findings on the effectiveness of self-management to the current research.

To my family and friends who stuck by me for the past five years.
I am grateful for all you have done for me and for all you have taught me about myself and the world around me.
Mom and Dad I love you very much.

Thank you Dr. Madden for all your guidance with this project.

"The future belongs to those who believe in the beauty of their dreams."
-Eleanor Roosevelt

Table of Contents

Snapshot of a Classroom

"Sally please put your name on the top of your paper. Sally you are not following directions your name should be on the top of your paper."

"What is two times three?"

"Oh I know, six!"

"Jenny you are calling out."

"What is four times eight?"

"Thirty-two!'

"Jenny please raise your hand."

"Write a paragraph describing your favorite activity to do after school. This is an on my own activity."

"Timmy get to work and stop talking to Bobby. This is an independent activity."

"Timmy time is up. You need to stay on task and complete your assignments."

This is a typical day that a teacher may have trying to manage his or her classroom. One student is not following directions. Another student is calling out and still yet another student is off-task. In my experience as a teacher-in-training I have found through my observations and conversations with teachers that students not following directions, calling out, and being off task are three of the most commonly occurring behavior problems in a classroom. Teachers spend most of the day trying to avoid and correct these problems. The more time spent on dealing with behavior means the less time that is being spent on actual teaching and learning. Can students be trained to self-manage their behavior? If

we can train our students to recognize some of their own behaviors, can we cut

down on the occurrence of these behaviors?

Chapter 1

This research project focuses on the effectiveness of self-management as a form of behavior modification. I've chosen the topic of behavior modification because it is a very interesting and necessary part of classroom management. Behavior modification has always occurred in classrooms; however, it was never given an official title until about ten years ago. Behavior modification has become increasingly prevalent over the past ten years and many different methods of modifying behavior have been established and practiced. Some of these methods are controversial because they do alter the behavior and lives of human beings which can be of ethical concern and because there is often not enough evidence to prove validity for other methods. One such method is self-management. Although researchers feel it is successful, others feel that it does not really help the student change his/her behavior. The success of the entire method depends on whether or not the student is truly motivated and ready to change his/her behavior. Educators are looking for ways to motivate their students to want to have "good" behavior.

To complete this study I chose to implement a self-manager into the classroom and then to determine its effectiveness as behavior modification on three behaviors: following directions, staying on-task, and calling out. As you recall

from the opening classroom portrait these are three very prevalent behaviors in classrooms. My research takes place over a total of five weeks. The students are observed for the first and last weeks by a frequency recording of the three behaviors being studied. The three weeks in-between they are using the self-manager to monitor themselves and the teacher monitors them with another recording sheet. Interviews are conducted through random sampling to get the student perspective on the self-manager and its effectiveness. The researcher, to informally record any thoughts or events that occur throughout the five weeks, also keeps a research journal. All of this data will be used to determine if the self-management system implemented is an effective form of behavior modification.

Limitations of this Study

There are several limitations to this study. I do this particular research during a student teaching period, which can prove to be overwhelming and provide time constraints because focus is not placed solely on the research. The entire success of the research depends upon participant motivation and researcher consistency. These are factors that are hard to control in a non-controlled environment. The fact that the sampling is purposive can make the findings difficult to generalize and further use of the intervention in similar situations would need to be conducted to confirm reliability and external validity.

Explanation of Relevant Terms

In this study there are several terms that are mentioned that need to be defined in the parameters that I am using for this research. Behavior modification as I have learned through my college course on behavior management is really any manipulation or change in behavior, either for the better or for the worse. Behavior encompasses so many things and for this reason only three were chosen; following directions, being on task, and calling out. Following directions means that the student is completing the particular activity in the correct manner as instructed by the teacher, whether it is sequence of events (ex. Putting their name on the paper before beginning the task) or expected mannerisms (ex. Sitting quietly). A student who is on task is completing the designated assignment or task in a quiet and respectful manner. Calling out would be defined as yelling out answers to questions posed or comments at a time when this is not deemed appropriate.

My perspective of the definition of self-management would be managing ones own behavior by realizing the behavior expected and monitoring in some way whether this behavior is being maintained and if not what improvements need to be made. When you are able to manage your own behavior you are able to see the consequences of your actions and analyze the cause of them.

What's Next...?

Further reading of the chapters of this thesis will explain this study in more detail. The next chapter gives a review of relevant research that focuses on self-management programs and the effectiveness of self-management. In order to

learn more about self-management, research has to be done to see what information there is already and to determine what findings this study can add to that information.

Chapter 2

This chapter examines this research pertinent to my study, moving from the least relevant studies to the most relevant in terms of how this research helped to develop this particular study. Discussions in chapter two not only examine research, but carefully consider conclusions to show what has been found and what new findings may be made.

What the Literature Tells Us

To learn more about self-management as a form of behavior modification a review of relevant literature was done. I found that literature on this topic is limited for a few reasons. First, it is a relatively new topic to the field of research. Secondly, the title of self-management is only one name for this type of behavior modification; it is also known as self-assessment, self-monitoring, and/or self-evaluation. The research that was found either explains what self-management is and studies its effectiveness or describes specific self-management systems and ways to implement them. Both of these ideas are relevant to this study because I will be looking at a program to implement and ways to determine how effective it is.

In reading the relevant research, it was discovered that different studies focus on a unique aspect of self-management. McConnell (1999) reports in her conceptual research on the reasoning behind self-management and gives suggestions of how and when to use it to achieve the best results. Two useful tips given by McConnell (1999) are the importance of consider the student's age, setting, and environmental factors when selecting a cueing system and using methods of direct instruction as an effective way to teach self-management procedures.

Her conceptual argument provides pertinent information on the purpose and uses of self-management. McConnell states, "In our increasingly inclusive settings, we all need to learn how to use behavior intervention that can help students with disabilities (Jones and Krouse, 1988). Self-management is an intervention that can help students be more successful in inclusive classrooms."

In a second article McDougall (1998) synopsizes current research studies in self-management, providing criteria used to compare these studies. He divides these studies into Category I and Category II studies. "Category I studies include studies of students with disabilities in relatively segregated settings, such as residential facilities (Keough, Faw, Whitman, and Reid, 1984), self contained classes (Kern, Dunlap, Childs, and Clarke, 1994), and resources rooms (Tollefson, Tracey, Johnson, and Chatman, 1986) (McDougall, 310)." "Category II studies include studies of students without disabilities in general education settings (McDougall, 310)." He suggests a framework to help divide other articles into categories based upon the settings in which self-management

strategies were implemented. The categories include self-contained special education, general education, and inclusion classrooms. Although informative, more research needs to be done about the use and implementation of self-management to support the ideas of these articles, which state that self-management was effective for students in the settings given in the two categories provided. However, they give no evidence of how effective self-management is in inclusion classrooms.

Because the topic of self-management can have so many different interpretations, much of the current research does not relate specifically to this study. Mitchem and Young (2000) focused on adapting self-management for the whole class and examined different methods to do this. While the research did not actually focus on one intervention and how its use changed the behavior of the students, it did discuss the fact that managing behavior is a big concern among teachers, especially new teachers. It also argues that there exists a gap between the words of teachers and their actions concerning classroom management, and that more modeling and reinforcing of proper behavior needs to be done. (Mitchem et al, 2001).

Although some studies define self-management, others focus on actual self-management programs, their implementation, and their effectiveness. In Bonfils and King-Sears (1999), a method known as SPIN was implemented and examined. This method is taught to the students in lesson form and is then implemented in the classroom. In this particular article, SPIN was implemented with middle school students having emotional and learning disabilities. The steps

of SPIN are similar to functional behavioral analysis. First, the target behavior is defined, then an intervention is implemented, and finally the effectiveness of the intervention is documented. Both methods collect baseline data, plan and implement an intervention and then collect data to check for any type of change that might have occurred. SPIN however, requires specific materials and is a ten-step, time-consuming process. (Bonfils et al., 1999)

Class wide peer-assisted self-management (CWPASM) is another specific program intervention that was researched. A study by Mitchem, West, and Young (2001) specifically examines at risk students even though the whole class was taught and underwent the intervention. This study included qualitative and quantitative research and data analysis. The variables were defined, integrity was tested, further research was suggested and the participants gave feedback. The results were highly positive and greatly supported the use of self-management for inclusive classrooms. On task time increased and the percentage of directions followed increased due to implementation of a class wide peer-assisted self-management program. This program too has many steps to follow and could be quite time consuming. (Mitchem et al, 2001).

Two of the articles research a previous study. Another study focused on students with ADHD (Bradley-Klug, Dupaul and Shapiro, 1998). A brief description of the characteristics of ADHD was given as background information. Then two case studies where the intervention was used were explained in detail. The research concludes that teachers must be careful when picking a type of intervention to be sure that it meets the needs of the students and the time

10

constraints and abilities of the teacher. The self-management intervention that was used was a type of rating scale of certain predetermined behaviors. This study focuses on a group of five students and studies them intensively in order to be able to generalize their findings to all students with ADHD. (Bradley-Klug et al, 1998).

A study done by Dupaul et al., also uses a rating scale and repeats the same study that Bradley-Klug et al., had repeated. This study also focuses on a small group of students. Three at risk students were observed. The intervention was taught and then was faded from teacher guidance to completely independent monitoring. This study too is very detailed and explains why self-management is a good intervention because it is cost effective and generalizable. The study states that because of the self-management intervention disruptive behavior decreases due to an increase in self-awareness. Limitations, further research ideas and feedback from the participants are all given. (Dupaul et al, 1998).

All of the articles reviewed support further research being done on self-management. The studies also focus on various populations of students that are either at risk (Mitchem et al, 2001 and Dupaul et al, 1998), have ADHD (Bradley et al, 1998), or have learning or emotional disabilities (Bonfils et al, 1999). Different class settings were also examined that included studies done in general education (Dupaul et al, 1998 and Mitchem et al, 2001), special education (Bonfils et al, 1999), and inclusion classrooms (Bradley et al, 1998). Most of the articles also state limitations (Bradley et al, 1998, Bonfils et al, 1999, Dupaul et

al, 1998, and Mitchem et al, 2001) and all of the articles make it clear that a self-management type of intervention must be thorough in order to be generalizable. Current research seems to indicate that self-management decreases disruptive behavior; however, little research has been done with students in inclusive classes. That is where this study comes in. This study hopefully will add new findings and more information to the use of self-management in inclusive classrooms.

What's Next...?

Now that we have seen what the literature states about self-management and learned its effectiveness and uses in various contexts, the methodology of this study can be described. Thus, in the next chapter the setting for this study and the steps of its implementation are outlined.

Chapter 3

The foundation has been laid for the purpose of this study. This chapter explains exactly how and where the study takes place. The research questions are clearly defined along with all of the variables that these questions and the study itself present. A synopsis of the characteristics of the sample is given and the culture of the community is briefly described. The steps of implementation and data analysis are given and the materials used can be found in an Appendix at the end of the study.

Research Questions:

- As a result of a self-management form of behavior modification, there will be a significant decrease in disruptive behavior by elementary students in the inclusion classroom.

- As a result of a self-management form of behavior modification, there will be a significant increase in self-awareness by elementary students in the inclusion classroom.

- As a result of an increase in self-awareness, there will be a decrease in disruptive behavior by elementary students in the inclusion classroom.

Variables of this Study

Through the research studied questions have developed that interest further research. All though mentioned and in some cases, merely suggested, a decrease in disruptive behavior due to self-management is an area that needs

more evidence to support its truth. To study this further one must take into account all the variables present.

Consistency in implementation of a self-management intervention is necessary to determine whether or not the results of the intervention are accurate. Follow through and consistencies therefore are very important variables. The next important variable is the participants who are involved because without their participation there would be no study. In this case there are nineteen students who make up the sample. The student teacher implementing this program and two cooperating teachers also are all participants because of their role in implementing and enforcing the intervention.

Dependent:

There are two dependent variables in this study. The first is disruptive behavior, which will either increase or decrease due to a self-management form of behavior modification and an increase in self-awareness. The second is self-awareness, which will increase or decrease due to a self-management form of behavior modification.

Independent:

There are also two independent variables in this study. The first is the self-management form of behavior modification. This variable remains the same and because of it disruptive behavior and self-awareness will both either increase or decrease. The second variable is self-awareness, which causes disruptive behavior to either increase or decrease.

Culture of the Sample and the Setting

The students who comprise the research group are nineteen third graders from a southern New Jersey elementary school in the United States. These students are in an inclusion classroom setting that includes the disability categories of ADHD, ADD, learning disability (LD), and multiple disabilities (MD). There are two cooperating teachers and one student teacher in the classroom. The sampling is a purposive sample because it is where I have been placed for my student teaching, by Rowan University.

The community in which the school is located is an average size district that contains five elementary schools, a middle school, and a high school. The socio-economic status of the district ranges from lower middle class to upper middle class. According to the 2000 Census the district has a population of about 21,000 people. In this particular classroom, there are ten girls and nine boys. The class is made up of fourteen students who are white, two African-American students, and three students of other races. The students range in ages from eight to ten years old. I collected data between the months of March and May of the year 2004. Once baseline data, charted frequency of the behaviors being studied was collected and reviewed implementation of a self-management plan began.

Implementation

In this study a self-management form of behavior modification was implemented. The resources for this study include frequency recording charts, self-management charts, and teacher observation and reflection notes (see

Appendix). The study was reviewed prior to implementation by Rowan University and permission was asked of all the students' parents/guardians to have the students participate in the study through a consent letter (see Appendix). To begin, I collected baseline data. I did this through observation for the first week. Frequency data was collected for students based on three behaviors, not following directions, calling out and being off task, where being on task means completing the designated assignment in a quiet and respectful manner. Then after observing the whole class I discussed the data collected with the two cooperating teachers. The timeline for the project was five weeks, one week of observation and introduction, three weeks of self-checking, and the final week was observation again.

The behavior modification system consisted of a behavior chart that was given to each of the students. The chart is in worksheet form so that it is mobile and can move with the students throughout daily activities. The chart lists all three behaviors, calling out, not following directions, and being off task. The students have space to write Y for yes this behavior did in fact occur or N for no that it did not. I explained the chart and the procedures that took place with it, to the cooperating teachers during a planning meeting so that their help could be used in implementing this plan.

These are the steps of implementation. Teacher-created charts were used throughout the study and can be found in the Appendix of this report. I met with the students during the school day to explain the procedure to them. This explanation was done in a lesson type of format and all of the students' questions

were addressed. Over the next three weeks the students and I, as the researcher, collected data on the charts. I conducted interviews with the students about this process over the three weeks that they were managing themselves. The questions asked during these interviews can be found in the Appendix. The students were chosen through a random sampling. Each students name was placed on a popsicle stick and the sticks were placed with the name-end down in a cup and were drawn to be interviewed during a free time after lunch where no lessons were disrupted. Also during this time, I was helping the students to identify their behavior by letting them know when they were doing something that is a behavior on the chart, and that they needed to mark it down. The chart is broken down into blocks for each activity. The chart also only includes time in the classroom because this is the time when I was available to collect the data and compare results with the students.

The researcher, myself, reminded the students at the end of each activity to check themselves. I also marked down how the students performed in the area of all three behaviors for each activity. Activities that were done in group format or in centers were not counted because it was impossible for me to watch every student all the time and examine their behaviors. When students' entries on their chart matched with those that I recorded, during conferencing they received praise and were encouraged to continue the self-checking and any problem areas of behavior were discussed.

Data Analysis

The final assessment was a second frequency recording of the class. I will compare the data from the post frequency recording to the pre-frequency recording. This will be done by creating graphs and taking notes on the changes that occurred as a result of the implementation. This data should show a visible change in behavior either positive or negative or no change in behavior at all. I will also review the self-assessment sheets and note any areas of consistent problem for further intervention. The analysis of the data and reflection on the intervention will all be reported later in chapters four and five. The analysis will be quantitative (frequency results and graphs), which will then be reviewed qualitatively through comparative notes.

What's Next...?

This methodology was fairly simple to follow. Teaching while collecting data did make the research somewhat difficult. This and many more findings will be explained further in the next chapter. Some interesting findings were made and changes for further implementation were discovered.

Chapter 4

The foundation for this study has been laid and the methodology has been explained in the previous chapter. The study was then carried out. In this chapter the data is analyzed. There are five data sources for this research study. These sources are: the interviews that were conducted by me with randomly selected students, a reflective journal that I kept during the study, frequency charts for the first and last weeks, teacher observation charts (11) and student behavior charts (187 total) for the three weeks that the self-management was implemented. Much of this data comes from the perspective of the researcher, however, participant input is documented through the interviews and the students' behavior charts. I will examine the data, compare data sources, and draw conclusions based on my findings. At the end of the chapter any changes that can be made to the study to ensure future success will be explained.

The data was collected over a five week period. By weeks, I mean five-day school weeks. I would like to note that two out of the five weeks were not full weeks due to holiday breaks. The first week was a full week; however frequency data was not taken for that Friday. The second week, which was actually the first week of the self-management implementation, was only a three-day week. The third week of the study was a four-day week.

The fourth week was a full week, but Friday was our class trip, so no data was collected for this day. The final week was a full week and frequency data was collected for each day. I am explaining this because these breaks in data could have an impact on the outcome of this study.

Student absenteeism can also affect the outcome of the study. In the total eleven day time period of the self-management implementation part of the study (weeks two and four) there were a total of seventeen absences. Out of nineteen children, eight were absent one or more times to comprise these seventeen absences. Eleven students were present for the entire study. The least amount of absences by one student was zero and the most was four. Data was not gathered on absenteeism during the weeks of frequency recording, but this would probably only have a minor effect on the numbers recorded.

Frequency Data Analysis

Frequency data was collected the first week of the study to develop a baseline to which the final data could be compared to show change, if any occurred. Frequency data was then collected again the fifth week of the study to compare to the baseline. The chart that was used can be found in the Appendix. All three behaviors, not following directions, off-task, and calling out, are shown. For this data collection the teacher wrote in what the activity was and again this only included whole group, in-class activities. The teacher then made a hash (i.e., /) mark for every time one of these behaviors occurred during that particular activity.

The first week was a four day week and the final week was a five day week. Because of this the data collected on the Friday of the final week was not used because there was no data for the Friday of the first week to compare it to. I compared the data mathematically. I totaled the frequency of each behavior for each day, and then I totaled the frequency for each behavior for each week. I then took those totals (for the week) and divided them by the number of activities that were observed that week where data was collected to find the average frequency for each behavior for the two weeks. I did this because during the first week there were twenty-three activities where data was collected, but in the second week there were only thirteen activities where data was collected because there was a lot of group and center work that week. The table below shows the totals for each week and the averages found:

Figure 1 Table of Frequency Data

Week One (23 activities):		
Not Following Directions	Off-task	Calling Out
5	12	4
43	139	21
10	89	13
16	48	8
Totals: 74	288	46
Averages: 3.217	12.522	2

Week Five (13 activities):		
Not Following Directions	Off-Task	Calling Out
13	35	3
20	40	7
15	27	2
14	16	0
Totals: 62	118	12

Averages: 4.769	9.077	.923

I then compared this data by creating a graph of each behaviors average frequency for each week. This helped give me a better visual to compare the data.

Figure 2 Graph of Frequency Data Averages
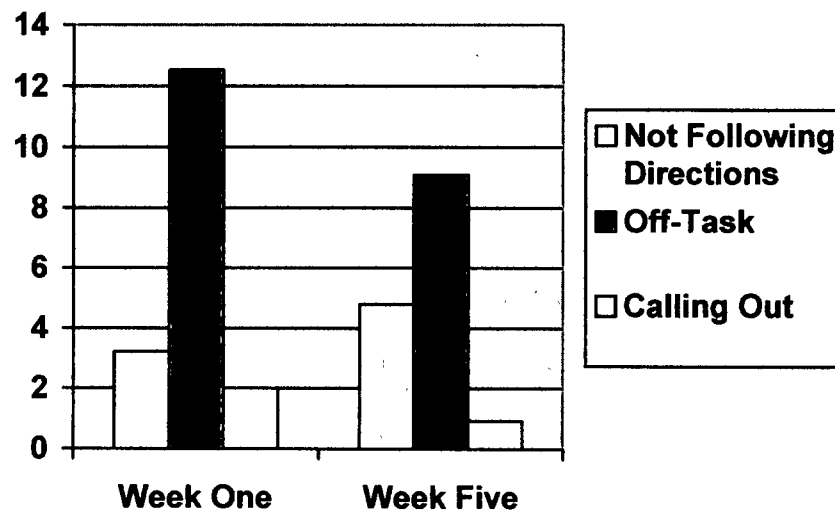
This graph helps show the change in frequency of these behaviors that occurred after the self-manager was implemented for three weeks. Calling out and off-task behaviors decreased. Off-task behavior improved the most. Not following directions did slightly increase by about a 1.5 difference between the averages. Although this increase is slight, it is still an increase. Difficulty with following directions is evidenced in this study by the lack of names and dates on student behavior sheets. Only six out of nineteen students put their name and the date on every single behavior chart. Some of the students only put their

names; others sporadically put their name and date on some of their sheets. This and other difficulties will be discussed later in this chapter.

Teacher Data v. Student Data

The next step in my data analysis was to compare the teacher and student data to determine how these changes in behavior occurred. To begin analyzing this data I reviewed each student's behavior charts. For each student I tallied how many Y's and how many N's they recorded overall for themselves in each behavior for the total eleven days (three weeks) that the charts were implemented. I then created a sheet where I listed all the students. Next, I counted up how many behavior charts each student had and I color-coded their names according to this number. Each group was given a different color; for example, those students who had all eleven sheets completed were underlined in green, and those students with ten sheets were orange and so on.

The numbers for these charts were as follows: Eight of nineteen students had all eleven sheets; four of nineteen students had nine sheets; one of nineteen students had eight sheets; and one of nineteen students had seven sheets. Four of the nineteen students were missing sheets. These students were not absent, but did not hand in all eleven sheets. Within this group of four, three students were missing one sheet and one student was missing two sheets.

Then I wrote down what each student recorded as their best behavior (the behavior with the most N's) and their worst behavior (the behavior with the most Y's). I also tallied any NA's students marked which stands for non-applicable, which means for whatever reason the student did not participate in that activity.

Discrepancies were also recorded. A discrepancy would be considered an illegible, blank, or YN answer (a student marked both).

Then I recorded out of a possible thirty-three activities how many each student recorded. Surprisingly, of the eight students who handed in all eleven sheets only two had recordings for all thirty-three activities. The numbers of recorded activities ranged from eighteen to thirty-three. Some of this is because of absenteeism. Of the eight who had all sheets the numbers ranged from twenty eight to thirty-three. This concurs with the frequency data that shows not following directions as the most problematic behavior.

I then examined the chart and put stars next to the students' names that had their name and date on all of their sheets, which as stated earlier were six out of nineteen students. I also put a circle next to the names of the students who were interviewed, which were nine students out of nineteen.

The next step was to see how this student data related to the data I had collected. I went through all eleven teacher observation charts. I then totaled all the hash marks for each behavior for each student over the eleven day period. These markings represent the same thing that a Y on the student chart represents, simply that the behavior did occur. I then created a chart seen below.

Figure 3 Comparing Teacher and Student Data of How Many Times These Behaviors Occurred

Student	Teacher Data			Student Data		
	NFD	OT	CO	NFD	OT	CO
*A	0	3	0	8^8	7^4	1^1

*B	0	4	7	0	6^2	10^3
*C	4	9	1	5^1	10^1	1
D	6^3	19^{10}	0	3	9	5^5
(E)	3^3	12^8	2^2	0	4	0
F√	1	6^3	1	1	3	1
*G	0	11	0	4^4	13^2	8^8
*H	0	2	13^1	7^7	5^3	12
I√	0	6^1	0	4^4	5	0
*J	0	7	0	10^{10}	19^{12}	0
*K	2	11^3	0	3^1	8	1^1
(L)	2^1	8^3	0	1	5	1^1
*M	1	4	1^1	7^6	14^{10}	0
*N	0	5	0	14^{14}	5	3^3
O√	1^1	9	0	0	11^2	0
(P)	17^3	21^{10}	7	14	11	8^1
*Q	3^1	7	5	2	16^9	7^2
(R)	7^3	15^8	0	4	7	0
S√	5	9^3	4	5	6	4
Totals	52	168^4	41	92^{40}	164	62^{21}
NA's	-	-	-	7	7	7
Discrepancies	-	-	-	5	2	1

This chart has several codes that need explanation. The chart is divided

in half to visibly compare the teacher and student data. The students are

represented by letters to preserve their anonymity. The letters were assigned to

the students using an alphabetical class list. The behaviors are all represented by acronyms, not following directions (NFD), off-task (OT), and calling out (CO). Next, I filled in the number of times that the students performed these behaviors as recorded by the teacher and as recorded by the student. These numbers represent the total of occurrence for the eleven days that the implementation took place. The chart was filled in like this for all the students. Then I went back and examined the data for differences between the teacher and student totals. Those totals that were different from each other I examined closer and highlighted the larger total in pink. I then wrote a superscript of what the difference in the totals was next to the higher number. Next, I highlighted the students who were interviewed in blue to better help me identify them for further data analysis later on.

I then stepped back and examined these findings. Those students who had 2/3 or 3/3 of the behaviors recorded as higher (highlighted in pink) were given a star next to their name. These students were harder on themselves when it came to analyzing their behavior, so therefore I determined that they had an extremely high self-awareness. The students who had 2/3 or 3/3 behaviors that the teacher noticed occurring more than the student had their names circled (represented here by the parentheses). These students were determined to have a low self-awareness.

Then there were students whose findings were about the same as the teacher or had only one behavior with a difference at all and these students had checkmarks put next to their names. I determined that these students were self-

26

aware at an average level that was not so low that they were unable to identify the behaviors and not so high that they were hard on themselves by believing their behavior was worse than it actually was. In all, ten students were extremely self-aware, four students had average self-awareness, and five students had low self-awareness.

I also totaled the occurrence of these behaviors for all students from both the teacher and student data. I compared these totals in the same way I compared the individual student data. This allowed me to determine which behavior was the best and which was the worst. This also allowed me to see if there was a huge discrepancy between the teacher and student data. I determined off-task behavior to be the worst. The student total for this behavior was less by four. The best behavior was calling out which the students actually recorded twenty-two more times than the teacher did. Not following directions fell in the middle and was recorded forty times higher by the students. I feel this is due to their better understanding of when they are or are not paying attention. All of the NA's and answer discrepancies were also represented in this chart. Next, I compared the findings of both the student and teacher data to the frequency data.

Teacher and Student Data v. Last Frequency Data

Comparing these data sources it was discovered that they coincide greatly. Both sources found off-task to be the worst behavior and calling out to be the best behavior as far as their occurrence compared to one another. Off-task behavior, although the most occurring behavior, was shown by the

27

frequency data to have decreased in occurrence after the self-manager was implemented, but was still higher than both not following directions and calling out. This behavior could definitely improve more with further intervention.

Not following directions was next as far as rate of occurrence in both data sources. The occurrence of this behavior did not really change and still needs improvement. This behavior should be targeted for further improvement because it made the least amount of progress of all the behaviors. This behavior also at times hindered this intervention, as explained earlier with students not putting their names on their charts and so on. This implementation did not seem to meet the needs of modifying this behavior as it did the other two behaviors. Calling out was recorded as the best behavior by both data sources because it had the lowest occurrence rate of all three targeted behaviors. The frequency data showed that it decreased, but as with all these behaviors improvements can be made with further intervention.

Interviews

As mentioned previously, random interviews were done with students to get their perspective on the process of managing their own behavior and on this particular implementation. The students were chosen at random by me. I used a method of random selection in which I placed the students' names on popsicle sticks and placed those sticks in a cup. I then drew out a stick at random and the name on it was the person chosen for the interview, unless of course that person was absent in which case I drew again. In this manner each student had an equal chance of being chosen for an interview.

In all nine students were chosen, three each week of the implementation. The interviews were conducted on Wednesday April 7th, Thursday April 15th and Thursday April 22nd. Out of these nine students three were present or handed in all eleven sheets for all eleven days. Three of the students missed two days and three of the students were missing sheets. Five boys and four girls were interviewed. Three of the students are classified out of the nine. These nine students will be discussed by using their corresponding letter, as shown in Figure 3, in place of their names to protect anonymity. The questions that were asked and discussed can be found in the Appendix of this research.

4-7-04:

The first student interviewed was student J. J, as shown by earlier data analysis, was one of ten students in all who showed extremely high self-awareness. As far as his analysis of himself, he was much harder on himself than what the teacher data had recorded. During the interview this student seemed withdrawn and did not freely give much information. He often said he couldn't remember in response to the questions posed. Some of this may be due to the fact that this interview took place during the first of the three weeks and on the third day of implementation. He could not remember what he was doing when he performed these behaviors or why he found himself not following directions or off-task.

The second student for this day was student H. H was also one of the ten students with extremely high self-awareness. This student was also slightly harder on judging her own behavior than the teacher had been. She felt that the

self-manager had helped her to recognize her behavior. In response to what behavior she would like to work on the student stated:

"....being off-task because when I do this I am not listening and

sometimes I am playing with something in my desk."

This shows that the student is starting to relate the behavior to its cause and the effect the behavior is having on her. This is evidence of self-awareness, very early on in the implementation. The student also showed this by stating:

"When I am not following directions I do something the wrong way

because I was talking when I was not supposed to."

The third student for this day, student M, felt that the self-manager was hard to do because she could not remember everything for the time period and whether she did those behaviors. This student however, also had a high self-awareness. M said, "This is helping me see what needs to be worked on."
4-15-04:

These interviews took place the second week of implementation so the students had a better grasp on the use of the self-manager and had worked with it a little more than those in the first interviews. Student P was one of the students who had a low self-awareness as far as the concrete data showed, but he was able to explain his behaviors very well and showed more self-awareness when he was asked to reflect on these behaviors through the questions provided. He stated: "This has helped...I can keep track of my behavior." He also said that sometimes he was not following directions because he would forget to fill out the chart. This could be a problem or confusion he may have with the form or that he

was not paying attention. When asked if he had any questions about the process he said he did not.

The second student interviewed this day was student R. R was one of five students out of the class with low self-awareness. He did note however, that he would daydream when he was not following directions, which was interesting because this is a behavior that cannot always be visibly recognized and must be known internally. One conclusion I drew from this interview was that this student may be more self-aware, but this was not shown because he had difficulties with not following directions and being off-task, which therefore could have given him difficulties with this self-manager. He had trouble filling out the Y's and N's and sometimes marked both at the same time; however, when asked if he had any questions about this, he replied no.

The third student for this day was student D. It should be noted that this student missed the first two days of the implementation and the process was explained to him individually by me when he returned. This student was also one of the students with low self-awareness. During the interview he was off-task, fidgeting and looking around the room. However, he did say that this was helping him"...because it is good for me." The behaviors were explained to him again because in response to the question asking what if any behaviors he would like to improve on, he responded "What behaviors?" Other than this he said that he had no questions. One conclusion I drew from this was that not being here when this started could have thrown him off because he has trouble staying on

task and that maybe he doesn't recognize the behaviors because he doesn't focus on them.

4-22-04:

These interviews took place the third and final week of implementation. These students had more exposure to the self-manager than those interviewed the first day. Student G was interviewed first this day. She was one of the students who were harder on themselves and she had a high self-awareness. This student, although very self-aware, said this implementation was kind of hard because it was hard to remember her behavior during activities after the activities were over. Her self-awareness was very evident in this dialogue:

Teacher: "Look at your activity sheets. Is there anything you would like to work on?"

G: "I want to work on following directions because when I am not following directions I am not learning." This response shows a great deal of self-awareness and the recognition of the consequences/effects of her behavior.

Student A was interviewed next. A was one of ten students with high self-awareness. She felt that the self-manager was not hard to use but stated: "...sometimes it's confusing remembering the Y's and N's." Then when asked if she had questions she said no. This student also noted daydreaming as a cause for off-task behavior, which again could throw off the results because this is not always visible to the teacher and the student may not be noticed as being off-task.

The final student interviewed was student S. S felt that the self-manager was both hard and easy. When asked to explain his answer he replied: "It is easy not to call out and it is hard to stay on task." This student did not acknowledge the Y's he had marked at all when reviewing his own behavior. He said he didn't want to work on anything because he gets mostly N's. However, he then was able to describe what he was doing when he was off-task and not following directions. He recognizes that he does these behaviors, but does not see any need for improvement. He was one of four students who had average self-awareness and most of his responses matched the teacher data, but he did not seem to recognize this in the interview and seemed to have a low self-awareness when spoken to about these behaviors.

Overall, none of the students had questions. Common themes throughout all the interviews were that it was hard for the students to remember incidents when they performed these behaviors, and it was hard to remember what the Y and N meant and which to use. At the same time the students also said that the self-manager was easy to use which slightly contradicts the previous statement. All the students said this helped them identify their behavior a little. The best way to help clarify and expand upon these interviews I felt was to compare the data these students had collected on themselves to the data I collected on the teacher charts.

Interviews v. Teacher Data and Student Data

Of the nine students interviewed, five were extremely self-aware, one was average and three had low self-awareness. I examined what the students saw

33

as their best and worst out of the three behaviors to what the teacher identified and compared this to behaviors they discussed during the interviews.

Student J saw his best behavior as calling out and his worst as being off-task. The teacher data showed his best as both calling out and not following directions and agreed with being off-task as his worst. The student was withdrawn during the interview and could not remember any information about these behaviors.

Student H saw her best behavior as off-task which ironically was a behavior she said she wanted to work on. The teacher saw her best behavior as not following directions. H's worst behavior as recorded by both the teacher and student was calling out, but she did not acknowledge this or the need to work on it in the interview.

Student M saw her best behavior of the three, as calling out and her worst as off-task behavior. The teacher also noted not following directions as one of her best behaviors. M did recognize off-task behavior as a problem and in the interview stated it as the behavior she wished to work on.

Student P saw calling out as his best of the three behaviors. He recognized not following directions as a problem area during the interview and wanted to work on this. The teacher data agreed with these findings and also noted off-task behavior as a problem area that the student did not identify in the interview.

Student R identified his worst behavior as being off-task in the interview, which matched the teacher and student data. He also regarded not following

34

directions as an area to work on, but unlike the other students he did not acknowledge what area was his best, which was calling out.

Student D was interesting because in the interview he asked what behaviors we were talking about. However, his data shows that he targeted his best behavior, not following directions, and his worst behavior, being off-task. This information aligned with the teacher data. He was picking up on the behaviors, but he did not understand what to do with them when they were discussed in the interview.

Student G recorded her best behavior as following directions and her worst as off-task. The teacher data agreed with this. G, however, did not recognize off-task behavior as the worst of the three behaviors in the interview.

Student A was able to identify her best behavior as calling out, but the teacher data also saw not following directions as one of her best. The student however, interestingly said not following directions as her worst behavior and the teacher data showed off-task as her worst behavior. A did recognize in the interview that she needed to work on her off-task behavior and never acknowledged not following directions which she herself identified as her worst behavior.

Student S was the only one of the nine students whose data completely correlated with the teacher data and recognized calling out as the best of the three behaviors and off-task as the worst of the three. However, in the interview he showed that he knows he goes off-task and does not follow directions, but did

not see the need for improvement in these or any other areas. He was rated at an average self-awareness level, but this was not shown in the interview.

This data shows that although the students rated their behavior on paper correctly, they were not always able to take that information and realize what it meant and what they should do with it. This also shows that this implementation could use improvements to better identify and measure self-awareness, because at times differences were seen between actual data recording and interviewing of the students. Some students were more self-aware on paper where they rated their own behavior and others were more self-aware when asked to discuss and reflect on the behaviors. This is why it is important to have diverse data sources that you can compare against one another. All of these data sources revealed common themes that tie them all together.

Reflective Journal

The final data source that needs to be examined is my reflective journal. Throughout the five week period of this study I kept a research journal where I informally discussed and commented on the research project. Sometimes I vented problems I was having, other times I gave a synopsis of the day, and other times I just free wrote anything to do with this study. This helped me to clearly outline and develop my thoughts and ideas. This also allowed me to see progress and problem areas within the study.

As I reviewed my entries I found it interesting to see the change in my anxiety levels as the study progressed. For the first week I was hopeful and wary

of the idea of teaching and collecting the data and conducting research all at the same time. I saw the task as daunting, but felt it could be done.

"I began my research today and have found that it may be difficult to teach and record data. I have concerns that one of the two areas, teaching, or data collection will lack the appropriate attention. If this is the case this could in turn cause more behavior issues. Well we shall see, hopefully this will go as close to plan as possible."

As time went on my fears became reality, but I then handled them and saw myself progress as both a researcher and a teacher.

"I have somehow developed my own ability to teach and keep track of behavior at the same time. This is a slow development but it is working."

Along the way there were changes I thought of for future research in this area and for this study.

"More time is definitely needed for this study, if implemented in the future. With all of the breaks we have been having it is hard to develop a complete database of information in such a short period."

This ability to reflect allowed me to express what I was learning and allowed me to develop a better picture of what the data was conveying. I noticed that as the study went on I became more familiar and comfortable with what I was doing and this correlates directly to the students that I interviewed. Those in the first week had little information to go on, but those in the last week were able to reflect better on their behaviors because they had so much time with the self-

manager. I too became more self-aware of not only my data collection, but my teaching style as well.

What's Next...?

This data analysis has shown that although this study was not totally successful, it was not a total loss either and both the participants and the researcher gained new insights into their own behaviors. As with any research study there is always room for change and improvement, as well as expansion of these ideas. In the final chapter, the conclusions of the research will again be reviewed and their implications explained further. Changes to the implementation of this study will also be discussed to ensure future success and new findings.

Chapter 5

All research is done in order to come to a conclusion, whether or not it coincides with the hypothesis of the study. Something can always be learned, even if that something is simply not to do this type of research again or that the method used did not work. This study has been discussed, implemented, and analyzed. So what does it all mean? Where can the research go from here? In this final chapter conclusions of the study will be examined closer and the implications of these results will be developed. My hope as the researcher was to add to the research of self-management as a form of behavior modification in inclusion settings. I argued for the use of self-management and felt that the self-awareness this strategy evoked would decrease disruptive behaviors in the classroom. A true learning experience for me, this chapter discusses the conclusions of my study.

Conclusions

As mentioned in the previous chapter this study did not work as effectively as planned and was not totally successful however from this I have learned and I am able to make suggestions for changes in the future implementation of this research. First, I would like to go back to the original research questions (Chapter 3) and determine how and if they have been answered based on what the data showed.

Research Questions:

- As a result of a self-management form of behavior modification, there will be a significant decrease in disruptive behavior by elementary students in the inclusion classroom.

Conclusion:

The data showed that calling out and off-task behavior decreased. But not following directions actually increased. None of these changes were large enough to prove to be significant. Further implementation would need to be done to determine if this change would continue to grow. Data analysis also indicates that if students are having trouble following directions this factor can impact the results (as noted in Chapter 4). I observed and documented frequent failure of some students missing sheets and neglecting to put their name and date on them additionally there were discrepancies in what the students wrote on their charts.

- As a result of a self-management form of behavior modification, there will be a significant increase in self-awareness by elementary students in the inclusion classroom.

Conclusion:

I found during my data analysis that this methodology did not measure self-awareness as effectively as it should have to determine an increase or decrease. The class seemed very highly self-aware from the data given, but this could be due to oversensitivity/criticism of the students on themselves. There was no way to determine if this was due to this study, except for some information gained by speaking to the students who were

interviewed. The students seemed to be at varying levels of determining responsibility for themselves and their actions. This is a skill that is developed at a young age through cause and effect. A child realizes that when they push a ball it rolls and that they are responsible for this action. This skill is also taught through experiences such as if a child doesn't do his homework he may get in trouble because it was his responsibility. The students in my study were young and still developing their self-awareness skills, which may have had an effect on their ability to rationalize their behaviors as something they could change.

- As a result of an increase in self-awareness, there will be a decrease in disruptive behavior by elementary students in the inclusion classroom. Conclusion:

It was noted that self-awareness was not measured in a way which determined an increase or decrease and that only two of the three behaviors decreased and this was not enough to be considered significant change. So therefore, this question was not clearly answered because the data did not clearly support the variables.

These conclusions do not answer the questions in a direct manner, but they do define the weak areas of the study and the areas that need to be revised for future research. If nothing else this research did motivate the students to think about their behaviors; and it also pushed me as a novice teacher/researcher to think more about behavior modification in the classroom.

The limitations of this study also proved to have a big impact on the result.

41

In Chapter 1, the limitations that were expected for this study were stated. These proved to be very true. Time was a huge issue. For better results I believe further implementation is needed to determine whether the change in behavior was really due to the implementation of the self-manager or if it was just a coincidence. The changes in behavior could also have been caused by the change in teachers. As the researcher, I was teaching full time and performing this study. My teaching style may have been what affected the change in behavior. This study requires more control by the researcher then they are always able to have, based on what they are teaching and how they are presenting the material to best meet the students' needs.

It also proved to be difficult to collect data with the teacher observation forms that were developed. In the future, a simpler form should be devised for the teacher/researcher to use while teaching. This study is not something that cannot be done while teaching; however, it can be more difficult for a new teacher who is not as familiar with the students than for a more experienced teacher.

Absenteeism too should be recorded because this also affects the reliability and validity of the results. Students who are not present will not have the same number of activities accounted for and this can change their numbers to make it seem like they performed the behaviors very few times, but in reality only a few were recorded because they were absent.

In conclusion, this study has provided a foundation for further research. Change in the students' behaviors did occur, just not as significantly as originally

hoped. These conclusions have shown that growth in the area of self-management has taken place. So what does all of this mean for teachers who are looking for ways to modify behavior in their classrooms that will allow students to take responsibility for themselves?

Implications of this Study

This research has shown that behavior management in an inclusion setting is just as necessary as it is in any classroom. This behavior modification must meet all the students' needs in order to be effective. It needs to be given time to take effect and time for modifications to be made to better ensure the success of the implementation to change behavior in a positive way. I have also learned that teachers cannot assume that students know what proper behaviors in the classroom are or if they do know what they are. Teachers must understand appropriate behaviors enough to be able to manage them. If a teacher is unsure of their students' background knowledge in a certain area, they must teach/review the topic. Likewise when studying behavior interventions and self monitoring, a teacher needs to review proper classroom behavior and continuously model this for the students. If a teacher expects students to behave a certain way this should be made clear and reinforced.

I also believe that the implementation of this behavior modification abruptly in the middle of the year was not the ideal time. It is much to ask students to assume responsibility for behaviors if the foundational expectations are not firmly in place. Students who are having difficulty even when they are constantly being reminded of their behavior, will often not be able to suddenly

43

meet the expectation of being responsible for themselves. These ideas need to be built in from the beginning of the school year and slowly more responsibility should be given slowly to the student.

It was also found that an environment that uses much cooperative learning may not be conducive for this study. Collaborative activities are not counted in the data collection because they are difficult for the teacher to monitor every student at all times. This can be an issue in an inclusion setting. Inclusion should foster cooperative learning and team building to create a learning community where teachers and students all work together. Further research should be done on ways for students to use self-management in inclusive environments which are centered around or highly rely on cooperative learning.

I also argue that in order to improve the validity and reliability of this study it should be done with two small groups of students in similar situations and the results can be compared to one another to determine if the implementation of the self-manager makes a consistent change of some type in the students' behavior. Further implementation is the key to determining the true effectiveness of this self-management system.

From this thesis, educators can expand their knowledge of forms of behavior modification and more importantly of self-management. By teaching students to be responsible for their actions we are alleviating some of the stress on the teacher and encouraging them to grow to be self-sufficient. This all contributes to character education where students examine their own behavior and its effect on those around them. Gaining self-awareness permeates through

so many things that children do and greatly affects the choices they make as they grow. Consequently a self-management study such as this can add greatly to knowledge of child development. By empowering a child we are helping them to grow and allowing them to learn on their own along the way. Research such as this allows educators to gather the tools necessary to do this -to achieve independence and show responsibility for learning and behavior. Further research is welcome and can only add to the findings presented here.

References

Bonfils, Kara A., & King-Sears, Margaret E. (1999). *Self-management instruction for middle school students with LD and ED.* Intervention in School and Clinic, 35(2)(1999, Nov), 96-107.

Bradley-Klug, Kathy L., DuPaul, George J., & Shapiro, Edward S. (1998). *Self-management as a strategy to improve the classroom behavior of adolescents with ADHD.* Journal of Learning Disabilities, 31(6)(1998, Nov/Dec), 545-555.

DuPaul, George J., & Hoff, Kathryn E. (1998). *Reducing disruptive behavior in general education classrooms: The use of self-management strategies.* The School Psychology Review, 27(2), 290-303.

McConnell, Mary E. (1999). *Self-monitoring, cueing, recording, and managing: Teaching students to manage their own behavior.* Teaching Exceptional Children, 32(2)(1999, Nov/Dec), 14-21.

McDougall, Dennis. (1998). *Research on self-management techniques used by students with disabilities in general education settings: A descriptive review.* Remedial and Special Education, 19(5)(1998, Sept/Oct), 310-320.

Mitchem, Katherine J., West, Richard P., & Young, K. Richard. (2001). *CWPASM: A classwide peer-assisted self-management program for general education classrooms.* Education and Treatment of Children, 24(2)(2001, May), 111-140.

46

Mitchem, Katherine J., & Young, K. Richard. (2001). *Adapting self-management programs for classwide use: Acceptability, feasibility, and effectiveness.* Remedial and Special Education, 22(2) (2001, Mar/Apr), 75-88.

www.census2000.com

Appendices

Appendix A

Parental/Guardian Consent Letter

Dear Parent/Guardian:

My name is Erica Predmore and I am the student teacher in your child's classroom this spring. I am a graduate student in the Master of Science in Teaching: Collaborative Teaching program at Rowan University. I will be conducting a research project under the supervision of Dr. Margaret Madden as part of my Master's thesis examining self-management as a form of classroom management that increases self-awareness and decreases disruptive behavior. I am requesting permission for your child to participate in this research.

The class will be observed, by myself for a week to determine the frequency of disruptive behaviors, by examining whether or not they are on task, are calling out, and are following directions. An intervention will then be explained to the class and will be implemented. The intervention is simply a chart that the students will have that lists these three behaviors and allows space for the students to mark yes or no at the end of activities regarding their behavior during the activity. This is all self-determined and will only be used for activities that take place within the classroom. I will also be collecting data. Each week I will conference with the students and we will compare our assessments of their behavior and discuss any areas of discrepancy. This will go on for two-three weeks. At the end of the two-three weeks, I will complete another week of frequency observation to determine if the intervention had any effect on disruptive behavior in the classroom.

To preserve confidentiality no names will be used during data analysis and all of the charts will be retained by me. All of the information collected will be used in my Master's thesis and will be reported in terms of group results. If at any time a student has difficulty with this intervention, they will not be penalized.

Your decision whether or not to allow your child to participate in this study will have absolutely no effect on your child's standing in his/her class. Students' grades will not be affected by this study. If you have any questions or concerns please contact me at the school or you may contact Dr. Margaret Madden at (856) 256-4500 ext. 3834. Thank you.

Sincerely,

Erica Predmore

Please indicate whether or not you wish to have your child participate in this study by checking the appropriate statement below and returning this letter to myself by March 26.

___ I grant permission for my child _____ to participate in this study.

___ I do not grant permission for my child _____ to participate in this study.

_____   _____
(Parent/Guardian signature)   (Date)

Appendix B

Frequency Observation Chart

Self-Management Activity Sheet

Teacher Observation Chart

Date_____

Frequency Observation Chart

| = one student   Students may fall into more than one category.

Activity	Not Following Directions	Off-Task	Calling Out
Total of occurrence of behaviors for class:			

Self-Management Activity Sheet

Name_____

Date_____

Y = Yes, I did this.   **N** = No, I did not do this.

	Not Following Directions	Off-Task	Calling Out
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Teacher Observation Chart   Date_____

/ = Yes, student did this.   Blank = No, student did not do this.

Table represents activities. Follow from left to right.

Student	Not Following Directions	Off-Task	Calling Out
A			
B			
C			
D			
E			
F			

Appendix C

Interview Questions

<u>Interview Questions</u>

1. Is this something that is easy to do or do you find it hard?

   - Why is it hard/easy?

2. Has this helped you at all?

3. Look at your activity sheets. I there anything you would like to work on/

4. What do you find yourself doing when you are not following directions, or off task, or calling out?

5. When you find yourself doing one of these behaviors is it because you realize it yourself or is it because someone tells you that you are doing it?

6. Do you have any questions for me about this?