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Is Intrinsic or Extrinsic Motivation more Effective with Elementary Students?

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### Abstract

The purpose of this action research project was to determine what motivational strategy was more effective with elementary students between intrinsic and extrinsic motivation. Students in a special education setting were taught a motivational strategy for a month prior to it being implemented and data collected. Then the data was collected through qualitative observations and quantitative scores based off the students specific disruptions. Analysis of the data collected suggests that while both strategies are an effective way to promote positive behavior, intrinsic motivation is the more effective form of motivation used in the classroom.

**Is Intrinsic or Extrinsic Motivation more Effective with Elementary Students?**

This paper explores the effectiveness of intrinsic and extrinsic motivation. The study explores the positives and negatives of both types of motivation from multiple online sources and through studies in a classroom. There are plenty of examples of classrooms using both types of motivation. The intentions of this paper are to see what works best in multiple classroom settings, and find the absolute best practice in teaching.

Many teachers work with students who have a hard time behaving in a positive manner. Most teachers have teaching styles and classroom management plans, but all teachers are very interested and driven to find out what is the most effective way to handle these students. This paper is specifically targeting students with behavior disorders (BD). The paper findings will help other teachers implement proficient behavior plans for students who need them. It will also help special education teachers and guidance counselors influence school districts by giving them knowledge to work with the general education teachers and create a positive classroom environment for all students.

This topic was chosen because the researcher is a special education and at-risk teacher. The researcher is working with students who are labeled BD and is challenged with finding ways to motivate students. The researcher had responsibilities as an internal Positive Behavior Intervention and Supports (PBIS) coach in the South O'Brien School District. The South O'Brien program places a tremendous emphasis on extrinsic motivation. The researcher is currently implementing a program called Top 20. It is a program that has incorporated philosophies into the Rock Valley Community School and community businesses as well to develop common language and promote a positive work

environment and community. Top 20 discusses how in contradiction of the program is of using extrinsic motivation in classrooms. The complete focus of Top 20 is for creating intrinsic motivation.

### **Literature Review**

Many articles were reviewed to help find the answers to the question. The first was a test done by Lancaster (2008). Lancaster (2008) is trying to understand the impact of student motivation in a self-contained special education classroom. Lancaster (2008) is a teacher at Shepherd Elementary School in Chicago. Lancaster (2008) is using the results of previous testing that has been done, and also testing and observations of students to help understand how to motivate students in the realm of inclusion in the general education setting rather than the special education setting. The testing by Lancaster (2008) has been done from, “four sources: student work, observational and anecdotal notes, student surveys, and my teacher journal” (Lancaster, 2008, p. 6). The question is, “What happens when I establish a classroom environment where my first through fourth grade students with severe learning disabilities experience high levels of success?” (Lancaster, 2008, p. 2).

Variables that Lancaster (2008) will have in testing are the four boys in a class whose progress has been typical for the students in the class. Writing workshop examples were collected thrice weekly. Lancaster (2008) focused on changes in the number of words written, consonant sounds correctly represented, and sight words used and written correctly. Observational and anecdotal notes were completed almost daily from December through March through observational checklists and note-taking sheets (Lancaster, 2008). A student survey was also given in January and in March to assess

student motivation (Lancaster, 2008). The testing was done at Shepherd Elementary School in Chicago, Illinois. This school had 650 students in its pre-K-6 grade. It is a multi-racial school. Eight percent of the students were identified as limited English proficient (LEP). The students are 57% African American, 18% Caucasian, 16% Asian, and 9% Latino. Thirty-four percent of students receive free lunch. The teacher has eight students in her class. Lancaster's classroom has 89% of students receiving free lunch. All of the students are African American.

The question that was trying to be answered was, student achievement effects or does not affect student learning and motivation? Lancaster's (2008) findings discovered, "Students' experience of success impacts their self-concepts and motivation which, in turn, leads to more advances in achievement. It is easier for severely learning-disabled students to experience such success in a self-contained environment" (p. 23). Lancaster decided that the special education students experienced more success in a small group setting because of the one-on-one attention, which made the students more motivated to work and succeed.

The second article reviewed was a study done by Nichols (2006). The goal of this study was to find how to establish a classroom model of motivation based on internal mechanisms to allow them to grow in the best possible way. The article discusses the current practices that are in place, specifically looking at what are the best ways to teach in the current school system. "A 40-item Likert-type questionnaire was developed to explore and identify each of the classroom dimensions. Ten items each were developed to measure affirmation, rejection, control and empowerment" (Nichols, 2006, p. 155). The dimensions that were described were: self-efficacy, goal orientations, and learner-

centered classrooms. One hundred teachers and 100 college professors took the questionnaire.

The findings from the study indicate that students can be motivated by internal strategies. Student can be motivated by external strategies, however, the correlation between affirmation and empowerment, affirmation and control and between rejection and control was significant (Nichols, 2006). Classroom structures where the learner-centered models were used yielded much more power than otherwise. The results provide support for the classroom that offers a stage to develop internal motivation structure to develop to be much higher than otherwise (Nichols, 2006).

Koh, Jia, and Hirt (2017) did a comprehensive study on why people act the way they do. The study tries to answer the questions surrounding why people make bad choices even when they know that the choice that they are making has negative consequences. It dives into people motives combined with the attitude on what the test subjects are doing. It is not necessarily centered on the education setting, but the principals still do apply very well. The study focused on people making poor choices and getting in trouble with the law. The premise of the study was surrounded around the idea that people are always motivated by something. People have the innate ability to want and desire something in the world and no matter what consequence is put in front of them, if the motivation of getting the desired motive is higher, the test subjects will still do the illegal activity. This article confirms that all people are motivated by something.

This next article digs into motivation from a different angle that is not from an educational setting, but one that is talking about eating and dieting by Hagger,

Chatzisarantis and Harris (2006). This is a study done to see why people do not do what is supposed to be done in dieting. It discusses how people are motivated to lose weight and be healthy, and how people are not. It is not an educational based study, but the same motivational theories apply to this study. Having clear plans and being highly motivated helped people in this study be successful. Lack of consistency and lack of a clear plan caused the test subjects to fail in this study. The test subjects who had a clear and concise plan and who were highly motivated found success.

Another journal by Lichfield (2009) shows a way to build intrinsic motivation through a study. This study is shown through two experiments. The purpose of the study is to see how brainstorming goals before performing a task is helpful to complete that task (Lichfield, 2009). This study was took to see how this strategy helped students become successful. The result of this study showed that students who brainstormed their goals before they performed a task were more successful. The study showed that the students who created intrinsic motivation before they performed a task had more success compared to a student who did not.

Abeyta, Routledge, Juhl, and Robinson (2015) wrote an article about finding meaning through emotional understanding. This study was done to see if people who had emotional clarity had a better grasp of what their meaning in life was. This is another way that intrinsic motivation was measured. Through this study it was found out that those who understood their emotions has much more clarity in life. Emotional clarity was defined as people who could determine what the meaning in life was (Abeyta, 2015). The test subjects showed that their understanding of the purpose in life helped the test subjects create concise goals for themselves while creating and building off intrinsic

motivation.

Seijts and Crim (2009) wrote an article about goal setting. These were tests done to see how the effects of a person's goal type and their cognitive ability shaped performance on a task. The tests were not run through an educational setting either, but the thoughts on intrinsic motivation still were strong. The results of this test show that a person's goal type and cognitive ability affected performance on a task. If the test subject had a clear goal in place before the performance, the test subject performed at a much higher level. If the test subject had a higher cognitive ability, the test subject also performed higher. Goal setting is an example of intrinsic motivation. If the test subject had higher intrinsic motivation, the scores were higher.

The testing was done in Lancaster's (2008) room was done with in the teacher's special education classroom. Lancaster (2008) did a lot of observing, gathering writing and schoolwork, and examining district wide assessments. The observing was all done by judgment calls. Lancaster (2008) noticed how the overall attitude of the class changed after certain things were written. This could skew the data because it was done in such a small class size in a small sample of the United States. The same things as the four students who were tested in this study motivate not every school, class, or student. This article could have personal bias because some of the assessments that Lancaster (2008) had to make were judgment calls. Lancaster (2008) mentioned how the overall attitude was poor after the students had a poor morning. There is no data to back this up, but it is just a feeling that the teacher got. There were not any ethical considerations. There was no student who was put at risk because of the assessments.

Another study by J. D. Nichols (2006) was not believed to have personal bias because the results were given from hundreds of people and not from the author. The testing ranged from elementary schools to colleges. There is a huge gap of ages in this range. This would make it hard to have a bias. No ethical considerations were mentioned. No child was put into danger in creating this study.

## **Method**

### **Participants**

The students who were selected for this study attend a school in Northwest Iowa. They are three students ranging from different ages, but all have been identified as students who need extra help with their behaviors. Student A is in third grade. Student A is a male and is Caucasian. Student A comes from a family where the parents have been separated and have gotten back together. The student has an older brother and a younger sister. The student does not have a good relationship with them due to explosive behavior. Finances are an issue for the family. Student A is an open enrolled student from a neighboring school district due to the parent's disagreements with the other school. The student is at benchmark in all core academic subjects according to his standardized testing. Student A had little to no disruptions in first and second grade. Once student A got to second grade, the school saw a change in him. Student A went through a year of therapy and doctor appointments and was diagnosed with depression and ADHD. Student A was put into special education by the end of the school year.

Student B is a second grade student. Student B is male and is Caucasian. The student lives with his grandma and is often taken care of by his great grandparents. His mom is still living but unfit to take care of Student B so his grandma has guardianship

over the student. Student B moved in to the researchers school district last year. The student is at benchmark in all core academic subjects according to his standardized testing. The student had more disruptions than the peers at the previous school but was never given an Individualized Education Plan (IEP). When Student B came into the researchers school district, the student exhibited similar behavior. The student was put on an IEP for his behavior.

Student C is a fifth grade student. Student B is a male and is Caucasian. The student lives with the student's dad, step-mom, brother, and two-step brothers. Student B's biological mother lives in Oregon with whom the students stays with every summer along with the students brother. The student has had problems listening to teachers and has gotten behind on reading. The student has been in Title reading for multiple years. The student has had a hard time with respecting female teachers and respecting peers. Student B has been diagnosed with AD/HD and Oppositional Defiant Disorder (ODD).

### **Data Collection**

The researcher is a special education/at-risk teacher. Part of the researchers' job is to collect data on goals that are made for each individual student that qualifies for special education or at-risk services. The researcher has been collecting data on three students who have been labeled behavior disorder (BD). Each of these students have been identified by the general education teacher as discrepant in the area of behavior compared to their peers, and qualify for extra support from the researcher. The students receive individualized instruction on following teacher instruction, appropriate peer relationships, and respecting school, peers, and themselves.

The researcher has to set a goal for their student for the student to achieve based on their behavior. The researcher keeps track of the data by counting the amount of disruptions that the student has during the week. A disruption is defined as avoiding non-preferred tasks, people or demands to gain attention. Examples include sitting and pouting, interrupts teacher (asks if he can do something else), and walks around the classroom. Non-examples include complaining about the task while doing it, requesting a break during task, requesting help or asking a specific question about task. A disruption also involves engaging in physical/verbal aggression during unstructured activities with peers or teachers. Examples include hitting with hands, kicking - forceful contact between the student's foot and a person, throwing something that strikes someone else, pushing - forceful contact with another person to put them off balance, biting others. Non-examples include friendly punches that do not cause pain, high fives, pats or other touches, throwing things on the ground or floor.

The special education teacher and or the teacher associates who work with these three students tally up the amount of disruptions that occur during that day and the teacher puts them in a notebook that keeps track of the amount of disruptions that the student has accrued. The special education teacher keeps these in a file to use to see if the plan for the student is working or if it needs to be changed.

The researcher chose three students to test for this study. Each three of the students has a behavior goal that they are being worked on with. For the purpose of this study, the teacher implemented 20-30 minutes per day of social skills time with all three of the test subjects. During this time, the researcher would teach and practice strategies involved with the motivational style that was being tested at the time. During the

extrinsic motivational time period, the researcher started off taking a student interest inventory. The student would take a verbal test asking specific questions about tangible things that motivated the students. Student A turned out to be motivated by earning time on the student's iPad. Student B was motivated by earning printed off pictures. Earning candy motivated student C. The researcher would work on strategies of earning those specific extrinsic items for month prior to doing their specific goal to earn them. For two months the researcher tallied the amount of disruptions they had during the time period, per week, and per class period.

During the other time period, the researcher taught intrinsic motivational styles. The researcher taught these styles through social stories, books, and role-play. The focus of the researchers teaching was to build motivation, desire, hope, and grit. The lessons relied on making the students create goals for themselves and create a clear plan on obtaining their goal. The researcher did not use any extrinsic rewards during this time.

Student A is a third grade male. His baseline is three disruptions per class period and 165 per week, as compared to the expected standard of same grade peers (five per week). The teacher implemented intrinsic motivation strategies from September 1 through October 1 and collected data from October 2 through November 24. The teacher implemented extrinsic motivation strategies from December 1 through January 1. The teacher collected data from the student using this strategy from January 3 through February 23.

Student B is a second grade male. His baseline is 27 disruptions per day, totaling 135 per week as compared to peers who average 5 or less disruptions per week. The teacher implemented intrinsic motivation strategies from September 1 through October 1

and collected data from October 2 through November 24. The teacher implemented extrinsic motivation strategies from December 1 through January 1. The teacher collected data from the student using this strategy from January 3 through February 23.

Student C is a fifth grade male. His baseline is six disruptions per day, totaling 30 per week as compared to peers who average five or less disruptions per week. The teacher implemented intrinsic motivation strategies from September 1 through October 1 and collected data from October 2 through November 24. The teacher implemented extrinsic motivation strategies from December 1 through January 1. The teacher collected data from the student using this strategy from January 3 through February 23.

### **Findings**

#### **Data Analysis**

A minimal amount of bias went into this testing. The fact that the data has been collected for almost an entire school year makes the information have validity. The testing was specific to students who have been labeled having a behavior disorder. In school districts across the country, there is a low amount of students who will be labeled with having a behavior disorder. The testing also covered a broad range of behaviors labeled as disruptions in the testing. This allowed for the researcher to compare the quantitative data no matter what the problem behaviors the student had been exhibiting before he or she was identified as a student with a behavior disorder.

#### **Quantitative Data Analysis**

**Table 1*****Disruptions Counted per Student: Extrinsic Motivation***

Student	Baseline disruptions (per week)	Total Disruptions (after intervention)	Disruptions per week	Disruptions per class	Percentage of change from baseline
A	165	84	14	0.25	-92%
B	135	323	40	0.73	-70%
C	30	77	9	0.17	-70%

**Table 2*****Disruptions Counted per Student: Intrinsic Motivation***

Student	Baseline disruptions (per week)	Total Disruptions (after intervention)	Disruptions per week	Disruptions per class	Percentage of change from baseline
A	165	20	1.53	0.03	-99%
B	135	122	15	0.27	-89%
C	30	80	10	0.18	-67%

Both motivation strategies showed a major improvement in reducing the amount of disruptions per week. When the students had a behavior goal to be focused on, there was significant reduction in the amount of disruptions. Students A and B amount of disruption dropped dramatically per week. Student A had 12.47 (89%) fewer disruptions per week when taught intrinsic motivational strategies compared to when taught extrinsic motivation. Student B had 25 less few disruptions per week when he was taught intrinsic motivational strategies compared to when he was taught extrinsic motivational strategies.

Student C averaged one more disruptions per week when taught intrinsic motivational strategies compared to extrinsic motivational strategies. Student A and B made dramatic changes to behavior in school when they were taught how to want to behave. Student C had almost the same amount of disruptions with both strategies.

### **Qualitative Data Analysis**

The researcher took notes based on observations from the general education teacher, special education teacher, and teacher associates. The researcher did this after every week answering the following questions:

1. How was the student's general mood during the week?
2. How did the student generally recover after having disruptions?

Student A, generally, during the extrinsic motivational piece was angry and did not have a positive attitude during school. The special education teacher and teacher associates described student A as not being a happy student during the four weeks that the student was testing during this time period. Student A did not recover well from disruptions during this time. The student would get angry that the student did not meet the extrinsic goal and would not be able to get over that. This caused more disruptions during the days and weeks.

During the time where intrinsic motivation was being taught, Student A seemed to have a much better attitude. The teacher worked on the student's self esteem and the student was much happier during this time period. The student was able to recover faster from the disruptions and get back to the class instruction in a more positive manner.

Student B was described to always be in a positive and happy mood during both the time slots where the motivation was taught. The teachers and aides did not see a

difference in this mentality with either, but noticed that the student was able to deescalate much faster when the intrinsic motivational strategies were taught. Student B was able to let previous disruptions stay in the past and try to work hard in the future. While Student B was taught extrinsic motivational strategies, the student was not able to move forward through the day without the extrinsic motivational token.

Student C's quantitative data did not show any change from either strategy, but the student made a big difference in the qualitative data. The student was described as an angry and bitter student during the month of extrinsic motivational strategies being taught. Student C's mood was described as being, "angry all the time." When Student C was taught intrinsic motivational strategies, the teacher associate described this student as being, "A joy to be around." Through observations, the student seemed to enjoy coming to school every day and learn new strategies to create self-esteem and self-worth.

## **Discussion**

### **Summary of Major Findings**

Throughout this study, the findings concluded that intrinsic motivation is a more effective motivational strategy to implement to behavior students than extrinsic motivational strategies. Through the data collected by the researcher combined with the data collected by others in the literature review, the researcher found evidence that students will have fewer disruptions if they are taught ways to want to behave, rather than be taught that they will receive an extrinsic prize for behaving.

### **Limitation of the Study**

There may have been a few factors that impeded the studies data collection. One bias may be that small sample size of students taken for the study, compared to a national

scale. Another one that is out of the schools and the researcher's control is what happened each day before and after the school hours at home. For example, losing a loved one to a death, not sleeping well the night before, or feeling sick that day.

### **Further Study**

Implications for future research suggest that more information needs to be collected by students who are not identified as behavior disorder. The study of the general population may have giant implications on student behavior in school. The study could also track the correlation between student's disruptions and how they affect their academics. This would show the correlation between student behavior and student academic progress.

### **Conclusion**

The study implemented was designed to determine what motivational strategy was more effective in student learning. Through qualitative and quantitative data, the conclusion is that students behave much better when a motivational tool is placed before them. Both quantitative and qualitative data show that intrinsic motivation is a more effective strategy than extrinsic motivation. The testing numbers show that the students have a substantial amount less of disruptions and they are happier to be in school.

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