Educators on Social Media: A Look Into What Montessori Teachers and Other Educators Believe About Intrinsic Motivation and Rewards

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Abstract

How teachers reward and motivate students in the classroom affects those children in their endeavors in future classrooms, as well as for the rest of their lives. When students misbehave or become uninterested, many teachers turn toward rewards to motivate children. However, in the early childhood years, students exhibit a wealth of intrinsic motivation. Are teachers' actions and beliefs regarding rewards hurting children's intrinsic motivation? Research by E. Deci, R. Ryan, C. Dweck, among others, has shown that rewarding children damages intrinsic motivation. Yet, teachers continue to offer extrinsic motivation to students. This study sought to examine the beliefs held by teachers concerning motivation, as well as their actions in the classroom. Survey responses by 116 teachers were first examined by looking at all teachers. The responses were then broken down into two categories—Montessori teachers and all other teachers—to be compared. Initial research findings suggest that the majority of teachers use extrinsic motivation in their classroom, and they do not believe it has a negative effect on the child. However, Montessori educators are less likely than other educators to use extrinsic motivators in their classrooms, and are more likely to believe that rewards negatively impact the child. This is possibly due to the training that Montessori teachers undergo, based on the philosophy of the founder, Maria Montessori.

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Chapter 1

Introduction

"At the end of this week, I'm getting a prize." The boy was seven or eight or years old, and he was excited to be at an academic summer camp for gifted children. His statement was immediately followed up with, "If I get a report of 'excellent' every day, I'll get thirty dollars on Friday." As the day and week wore on, not thirty minutes passed that he didn't ask if he was "doing excellent."

Throughout my education for my Master's degree, various discussions would occur in my early childhood development classes probing the benefit—or detriment—of rewards and praise in the early childhood classroom. As we learned that providing verbal praise after a child completes a task can actually *demotivate* a child instead of motivate, I was left wondering—if not for praise, then *why do* children work?

In my graduate courses, I began to watch my teachers and fellow students. In Montessori, our classes are materials classes with a strong focus on learning the materials that we will then teach to our students. Our practicals, or exams, were hands-on: we "taught" the material to another student who played the part of the "child." While observing these exams, I noticed many of my classmates, seemingly out of habit, praise their partner (who was working as the child) as she completed the material. Each correct number placement in working on a math problem, or each correct object chosen that matched up with the phonetic sound, was met with "Good," or "Right," or "Great job!" Were these small, habitual responses going to undermine our efforts to help children keep intrinsic motivation?

I have often overheard teachers discussing what to do when a child transfers into their classroom from a classroom where the former teachers used frequent verbal praise. These

children were usually described as more needy and clingy; after they completed a work, whether it was a Montessori material or a piece of art, the child was determined to find the teacher to show her, seeking verbal affirmation of having done a good job. While this alone does not imply a negative effect of verbal praise, it does hint at a correlation between praise and intrinsic motivation.

Scope of the Topic

While I have been trained in Montessori education, the scope of this paper is not limited only to Montessori classrooms. Rather, all types of classrooms have been taken into consideration in regards to the development of intrinsic motivation in children. However, further study would be required to understand more fully if one type of education promotes a child's development of intrinsic motivation over another type of education. Another avenue of continuing study would be to focus solely on Montessori education, to see how these classrooms operate differently as far as intrinsic and extrinsic motivation.

Further, is there a difference in the way Montessori educators and traditional educators motivate their students, or does it vary from educator to educator? Are different geographical areas of the country more inclined toward verbally praising their students, or is verbal praise more common among varying demographics? It would also be important to note whether children receive different reward systems at school and at home, and how the child resolves that conflict.

On a deeper level, how are teachers themselves motivated in the classroom? It is possible that a teacher's own motivation and satisfaction with his or her profession holds a correlation to the type of motivation they promote in their classroom. Are teachers who are more intrinsically motivated likely to foster that same motivation in their students?

The Problem

What do educators who use the Internet and the social media believe about power and effectiveness of intrinsic motivation, and are Montessori educators more adept at keeping intrinsic motivation alive? The hypothesis of this study is that educators do play a large role in the development of intrinsic motivation, that they can keep it alive through their use or avoidance of language, rewards, and praise, and that Montessori educators are more likely to support intrinsic motivation.

Significance of the Study

Research on motivation and external rewards has seen an influx in recent years; however, this research study will take an in-depth look at the use of praise in the Montessori classroom and how this develops motivation for Montessori students, as well as generate a comparison to the traditional classroom. This study will seek to survey educators across the United States for their current perspectives on praise and motivation: it will provide insight into how teachers in the field implement external rewards, including verbal praise.

There are already studies that show how praise and rewards impact a child's development of motivation, and by extension, the rest of their life. In studying how current Montessori and traditional educators view and implement praise, researchers can hypothesize how current students' motivation will develop, thereby gaining a window into what is most beneficial to the child. This is an especially fascinating area of research given the number of recent innovators in 21st century who have publicly acknowledged their early Montessori background. Insights into the development of motivation in Montessori educated children may provide an explanation as to where these innovators acquired their persistence and drive.

School administrators can use this information to understand what current research says about intrinsic motivation, coupled with what educators believe and are practicing in the classroom. With this information, administrators could more effectively plan teacher trainings to ensure that teachers are using the most researched approaches to rewards and praise. The greater the number of teachers using rewards and praise effectively, the more likely we are to raise a future generation of children who work for the satisfaction of it, not with a "what's in it for me," attitude.

Assumptions of the Study

- The study assumes the honest and well-intentioned answers of surveyed educators.
- The study assumes that children naturally develop internal motivation to varying degrees dependent upon their environment.
- The study assumes that educators surveyed represent a vast geographical area, based upon how the survey was distributed.
- The study assumes that all respondents to the survey are educators.

Limitations of the Study

- The researcher has not verified Montessori or other educational credentials for all surveyed participants.
- The researcher cannot guarantee a geographically varied sample.
- The researcher can only hypothesize about students' motivation and will not be in direct contact with the students.

Operational Definitions

- Early Childhood – refers to children between the ages of three and six.

- External/Extrinsic Motivation – participating in an activity specifically to receive a reward or praise
- Internal/Intrinsic Motivation – the desire to participate in an activity merely from the pleasure the individual gains from doing the activity; there are no rewards involved.
- Montessori Education – Method of education developed by Maria Montessori in Italy in the early 1900s. This educational method is based on the principle that the child has all the power to learn already inside, and the teacher exists in the classroom not as a lecturer, but as a guide to help the child learn independently.
- Person Praise/Feedback or Ability Praise – praises the ability and/or character of the student. "You're so good at math." "You're very smart."
- Praise – a type of verbal external motivation
- Process Praise/Feedback – describes the work the student has done. "You concentrated hard to complete the assignment."
- Traditional Education – Method of education most commonly thought about; does not include Montessori education or other forms of alternative education, but can be either public or private.

Chapter 2

Beginning in the late 1960s to late 70s, research on motivation in early childhood established that using positive reinforcements was effective in teaching. However, more research was conducted in the 1990s that found that praise was potentially damaging to young children's motivation (Bayat, 2011), conflicting with the predominate belief. While there is much research to be found on the potential effects of rewards and praise on children, or on how teachers *should*

praise children, there is a gap in the research concerning what teachers are *actually* doing in the classroom and how this meshes with our understanding of current research.

Researchers agree that children are born innately motivated. Drawing on years of control and experimental research, Deci and Ryan (1981) sought to answer why young children are innately curious about the world around them, but why older children seem more resistant to learning, relying much more on directives and grades from parents and teachers. Citing Barrett and Morgan, Carlton and Winsler (1998) speak to "mastery motivation," motivation that is intrinsic in nature. Infants, toddlers, and young children possess mastery motivation, which is the general need they have to master their environment. The vast majority of children possess mastery motivation; however, as children age, events that occur in their early years stage how their motivation changes as they get older.

Deci and Ryan (1981) pointed out that people can be in any one of three forms of motivation: intrinsic, extrinsic, or amotivated. Intrinsic motivation stems from a person's desire to be competent and self-determining; the learning a child does in this state is active and involved. People who are extrinsically motivated are working toward an external reward—money, grades, praise, etc. Here, the behavior is a "means to an end," where the "end" is a reward. Amotivation, on the other hand, encompasses those who are passive and non-responsive. These learners feel that whatever they do, they do not have a meaningful impact on their environment, which leads to inaction.

Citing Seligman and Garber, Deci and Ryan (1981) address learned helplessness and amotivation. Seligman and Garber found that when people's behavior does not lead to predictable outcomes, they learn to be helpless; here, they learn that a desired outcome will not happen from their own efforts—instead, the outcome happens from chance or fate. This outcome

led Deci and Ryan to theorize that the key element is inconsistency. Even if rewards accumulate, if they do not accumulate in a predictable manner, that environment can undermine a person's sense of "effectance"—the sense that they can achieve goals. For learners to feel competent in their learning, and not helpless, a clear relationship must exist between behaviors and a predictable outcome.

Montessori, a physician, agreed with Deci and Ryan based on her numerous observations. She believed that teaching independence helped children overcome helplessness:

> If teaching is to be effective with young children, it must assist them to advance on the way to independence. It must initiate them into those kinds of activities which they can perform themselves… We must help them to learn how to walk without assistance, to run, to go up and down stairs, to pick up fallen objects, to dress and undress, to wash themselves, to express their needs in a way that is clearly understood, and to attempt to satisfy their desires through their own efforts. All this is part of an education for independence. (Montessori, 1967, p. 57)

Teaching children to be masters of their own behavior, Montessori believed, would enable them to overcome helplessness and understand how they control their environment.

In earlier control and experimental studies, Deci and Ryan (1981) found that when college students were paid after working on activities they had previously found interesting, they displayed less intrinsic motivation than other students who were not being paid. The behavior had become dependent on the reward, making the students less likely to pursue the activity when the reward was removed. A similar control and experimental study by Lepper, Greene, and Nisbett reached the same conclusion with preschool children. After rewarding children with "good player" awards for their work on an art project, their intrinsic motivation for art was

diminished. Bayat (2011) cited similar studies by Baumeister, Campbell, Krueger, and Vohs, which discovered that based on the research they had reviewed and completed, praising children could be counterproductive to their school performance.

Citing a different study completed by Deci, Carlton (1996) supports the research that people are more likely to follow through on an activity that they feel control over. Intrinsic motivation occurs from the desire to feel "personal causation"; that is, if a person believes that she is the cause of her actions, than she is more likely to feel intrinsically motivated. However, if she feels that an outside force wants her to perform an action, she will be extrinsically motivated. Therefore, a crucial element to motivation is being in control of the "causation."

Through the studies completed, Deci and Ryan (1981) concluded that the recipients of rewards tend to understand that their behavior was caused by the rewards; therefore, they subsequently will only perform the behavior when the reward is present. Through reward contingency, intrinsic motivation is undermined. Therefore, whenever a person's behavior becomes, or appears to become, controlled by an external factor, his or her internal motivation diminishes. Bayat (2011) cites Dweck, Kamins and Dweck, and Mueller and Dweck in support of this, stating that instead of praise helping children achieve academic success, it often discouraged them from exploration and learning. Carlton and Winsler (1998) agree, citing Cameron and Pierce, stating that giving rewards to children for an activity that already interests them reduces intrinsic motivation, leading to children becoming less likely to repeat the activity later.

Carlton and Winsler (1998) continue, citing Lepper: young children already have mastery motivation to complete a task, which is their intrinsic motivation; however, when they are rewarded for doing a task in which they are already interested, children can interpret the reward

as the reason to do the task, rather than for the mastery of it. The child loses focus of the joy of the activity, and instead focuses on the external reward. Further, this leads to a feeling of being under external control, rather than internal control, and this contributes to children ceasing these activities for pleasure.

Further, citing Deci, Cascio, and Krusell, Deci and Ryan (1981) bring up the "competence component," stating that when subjects either fail at an interesting activity, or when they are told they have not performed well, they show less intrinsic motivation than subjects who either performed well, or those who did not receive negative feedback. To combat this, Montessori implemented a *control of error* in all the materials she developed. The American Montessori Society Website (2013) explains control of error:

> Montessori materials are designed so that the child receives instant feedback as he works, allowing him to recognize, correct, and learn from his mistakes without adult assistance. Putting control of the activity in the child's hands strengthens his self-esteem and self-motivation as well as his learning. (https://www.amshq.org/Family-Resources/Montessori-Terminology.aspx, retrieved August 8 2013).

Other studies have also investigated what factors promote intrinsic motivation. Deci and Ryan (1981) posit that there are two types of factors: choice and positive competence feedback. An experimental and control study completed by Zuckerman, Porac, Lathin, Smith, and Deci found that when college students had a choice of which puzzles to complete and how long they would like to work on them, they displayed more intrinsic motivation than students who were assigned puzzles and given a time limit. Swann and Pittman found comparable results in a study with young children. Montessori (1967) supports their research, stating, "…a child should be left free to choose the objects he wishes. The more the obstacles that stand between a child and the

object to which his soul unconsciously aspires are eliminated, the better it will be for the child" (p. 97).

A later study of Deci and Ryan, cited by Crow and Small (2011), discovered that interest in an activity is maintained—and even increased—when it enables an individual to have autonomy (using free will, having choices), competence (feeling capable), and relatedness (connecting with others). Carlton (1996) cites a study completed by Deci, Vallerand, Pelletier, and Ryan that looks at self-determination theory, and states that these three parts—autonomy, competence, and relatedness—interconnect to create self-determination (Carlton and Winsler, 1998).

Positive competence feedback has also been shown to have a positive relationship with intrinsic motivation. According to Deci and Ryan (1981), subjects who receive feedback that they are competent show more interest and stamina in completing an activity when compared with subjects who do not receive competent feedback. It seems clear that choice and positive feedback can boost internal motivation, while controlling rewards and negative feedback can deplete it.

On the other hand, Bayat (2011) cites another study completed by Mueller and Dweck to support her claim that even positive feedback can be detrimental to intrinsic motivation. Their study found that praising children for intelligence—such as "You got a good score! You must be smart!"—can have negative effects on a child's behaviors and beliefs. In the study, the children who were praised for intelligence after success later chose to solve problems that were easier, avoiding the more difficult tasks. The children showed less intrinsic motivation about learning, while showing more concern for their performance status. By being praised for intelligence, the

children learned that intelligence was a fixed trait, causing them to ascribe their failures to a lack of intelligence or ability.

However, the study Bayat (2011) references also found a type of praise that had positive effects. Mueller and Dweck praised a second group of subjects based on their hard work, instead of on their intelligence. Subjects in this group were told, "You worked really hard!" As opposed to the first group, the second group of children was motivated to choose problems that increased their learning. When children were praised for effort rather than ability, they ascribed failing to the task rather than to their intelligence.

Through 20 years of studies, Dweck found repeating results, leading to the distinction between "person praise" and "process praise." Person praise gauges a person's attributes, like intelligence. Process praise focuses on a person's behavior or actual work. While person praise creates a rigid mindset in the person, process praise helps people develop a flexible mindset. Process praise, Bayat states, describes the behavior. Personal statements like, "Good girl!" are subjective, while process praise might say, "Good work following directions" (Bayat, 2011). Further, process praise can only be rejected by the recipient if what was stated was incorrect (Corpus and Lepper, 2007). Carlton and Winsler (1998) support this idea using Solomon's research. Focusing on the accomplishment, or person praise, accentuates the work the child has done, but not the child's own efforts. Using the child's own abilities—or person praise—as the basis for praise is easier for the recipient to reject (Corpus and Lepper, 2007).

Burnett and Mandel delved more deeply into person versus process praise in their 2010 small-scale qualitative study. They evaluated student and teacher perspectives through interviews and observations on general, non-targeted praise ("excellent," "well done," "that's great"), negative feedback ("that's not good enough, "that's untidy"), effort praise—or process praise—

("you're working hard on your math assignment"), and ability praise—or person praise—("you're very good at math"). Results of the study indicated that older students had a preference for effort feedback over ability feedback, while younger students had a smaller preference for ability feedback over effort feedback. However, during classroom observations, 77% of feedback teachers gave was general feedback—approximately 35 times per hour. Effort and ability feedback were used less than 10% of the time.

In an earlier study, Dweck (2007) concluded that a student's understanding of intelligence is directly related to praise. Some students view intelligence as being a "fixed trait"—they have a certain amount of intelligence that they cannot change. Other students believe that intelligence can be developed through effort and education—they are said to have a "growth mind-set." Research has shown that the brain holds more plasticity over time than ever previously thought—intelligence can in fact be enhanced through learning.

Students praised for ability ("You must be smart at these problems") and students praised for effort ("You must have worked hard at these problems") were assessed for the mindsets they developed in various experimental studies. Dweck's study found that students praised for ability developed fixed mindsets—they believed their intelligence was something they could not change. However, students praised for their effort developed a growth mindset—students who believed they developed new skills because they were working hard. Process feedback, then, keeps students focused not on an ability they may or may not have, but on the process they need to engage to learn (Dweck, 2007). When students receive process feedback, they receive more information about competence and effective strategies to apply in similar situations in the future (Corpus and Lepper, 2007).

Through previous studies, both Deci, and Deci and Ryan (1981), have found that rewards have two aspects: a controlling aspect and an informational aspect. Each aspect has a certain function. The controlling aspect seeks to bring about a certain behavioral outcome that the person giving the reward wants. The informational aspect seeks to contribute information to the recipient that is applicable to his or her performance. Every reward contains these aspects; many studies have been performed to highlight the differences between them. One control and experimental study, completed by Pittman, Davey, Alafat, Wetherill, and Wirsul, researched the differences between controlling and informational verbal rewards. One group of subjects was told that they were doing well at the task. The second group was told that they were doing well and that their data would be useful to those doing the research. The controlling aspect was emphasized in the second group—that is, the task they were doing was for the benefit of the researchers; accordingly, their intrinsic motivation for the task decreased. As a result, the degree to which intrinsic motivation is diminished depends on if the recipient of the reward interprets the reward mainly as controlling or informational.

Crow and Small (2011) elaborated on the use of controlling versus informational praise. Informational feedback informs the recipient of what they have done, and tells them how to competently repeat the action again in the future. However, feedback can become controlling if the recipient feels that the person giving the reward wants to control their behavior. For example, if after completing a project, the teacher says to the student, "Your project is excellent. I really like it, and you make me proud," the student interprets the teachers feedback to mean that the teacher is the dispenser of approval—the goal is for the student to please the teacher. However, if the teacher says, "Your project meets all the requirements in the assignment rubric. This is a complete assignment," the student understands what it means to work competently. Kohn

elaborates, calling rewards "manipulative." While the reward may be something desirable, receiving the reward is contingent on fulfilling the stipulations of someone else. Further, rewards can even seem like punishment when the reward desired is not attained—the more desirable the reward, the more disheartening it is to not achieve it (Glauser, 2004).

Deci and Ryan (1981) also believe that how teachers relate to children in the classroom has an impact on a student's internal motivation. A case study completed by Deci, Nezlek, and Sheinman sought to understand the relationship between a teacher and student. They hypothesized that the more controlling the teacher, the more that teacher would use rewards in a controlling manner, thus having children in their classrooms with lower intrinsic motivation; on the other hand, they hypothesized that teachers who were "highly supportive of autonomy" would be more likely to use rewards in an informational way, thus having students with higher intrinsic motivation. The results they found supported their hypothesis. Additionally, they found that children in "control-oriented classrooms" had a drastically lower sense of self-worth when compared to children in the "autonomy-oriented classrooms."

Teachers, according to Deci and Ryan (1981), play an important role in the support of intrinsic motivation in their students. Researchers summarized their argument by highlighting the three different types of environments possible in a classroom: a non-contingent, non-responsive environment, that is, an environment that produces amotivation or helplessness when a subject's behaviors do not produce expected results; a controlling environment that diminishes intrinsic motivation and fosters extrinsic motivation; and a contingent responsive environment that encourages intrinsically motivated behavior. A contingent environment, they say, is important because children "must perceive a relationship between their own behavior and desired outcomes"; without such a relationship, children will become amotivated. Contingent

environments must be responses to a child's initiations—if they are administered in a way that can be perceived as controlling, the environment will be detrimental to intrinsic motivation.

Further, Deci and Ryan (1981) speak to the importance of the teacher's attitude for the classroom. They cite educational theorists such as Bruner, Montessori, and Rogers, and say that the teacher should be the "facilitator of learning." The qualities of a teacher that seem to promote learning in students are trust, empathy, and realness. Montessori (1966) explained that a good teacher forgoes tyranny, rids his or her heart of pride and anger, and learns how to "humble himself and be clothed with charity" (p. 153). According to Deci and Ryan, their studies have found that teachers who are oriented toward autonomy in their classrooms have greater promotion of intrinsic motivation; their hypothesis is that these teachers are more trusting and empathetic. Survey-based research of 125 participants by Mantalvo, Mansfield, and Miller, cited by Fitch (2013), supports the role of teachers in the classroom. The researchers discovered that if the educator created an environment based on positive feedback, respect for students, and spaced out assignments to avoid overwhelming the students, the teachers were well-liked and academic motivation increased in the students.

Teachers who operate under an "autonomy-oriented" model in the classroom are likely to also provide the opportunity for children to be "self-determining," according to Deci and Ryan (1981), which is the ability to make one's own choices and impact the environment. A study by Benware and Deci tested this. They created an active and a passive environment; in the active environment, they asked subjects to learn a certain material in order to teach it to others, while in the passive environment, subjects were asked simply to learn a material. Results from the study indicated that even though students spent the same amount of time learning the material, the

subjects in the "active learning model" were more intrinsically motivated than the subjects in the "passive learning model."

Carlton (1996) supports the idea that autonomy is important for intrinsic motivation. Citing Deci and Ryan in a later study, she states that if children feel autonomy—the need to regulate one's own behavior—at home, they are likely to transfer those feelings of autonomy to school situations. However, when individuals are in situations in which they do not feel control, they feel little personal responsibility. Learning done in situations not supportive of autonomy is often rigid, while learning done in autonomy-supportive environments facilitates a greater understanding of the material being learned (Carlton and Winsler, 1998).

However, autonomy alone is not enough for motivation to be bolstered. Citing Katz and Assor, Fitch (2013) explained that there are three components autonomy needs in order to be beneficial to motivation: 1) *Autonomy support* – the needs and goals of students are accounted for, 2) *Competence support* – choices are not too numerous or complex, and 3) *Relatedness support* – choices support the family values and beliefs of the children. When these three components have been successfully implemented in the classroom, the purpose of the task is clear to children, ensuring they stay engaged in the experience.

Montessori developed a system of education along the guidelines Katz and Assor put forth. The American Montessori Society's website elaborates:

> In a Montessori environment, children learn by exploring and manipulating specially designed materials. Each material teaches one concept or skill at a time, and lays a foundation from which students can comprehend increasingly abstract ideas. Children work with materials at their own pace, repeating an exercise until it is mastered. The teacher may gently guide the process, but her goal is to inspire rather than instruct.

> Throughout the classroom, beautifully prepared, inviting curriculum areas contain a sequential array of lessons to be learned. As students work through the sequence, they build and expand on materials and lessons already mastered. And all the while they are developing qualities with which they'll approach every future challenge: autonomy, creative thinking, and satisfaction in a job well done. (https://www.amshq.org/Family-Resources/Montessori-Education-and-Your-Child.aspx, retrieved August 8 2013)

Deci and Ryan (1981) conclude by stating that a teacher's own motivation is also important. Teachers who themselves are intrinsically motivated can best help children stay intrinsically motivated in the classroom. Intrinsically motivated teachers, Deci and Ryan say, appear to create the "autonomy-learning model" in the classroom; they are more supportive of children's attempts at independence and mastery, and they more frequently use informational rewards over controlling rewards. For teachers to stay intrinsically motivated, it is important for teachers to feel support from those around them.

Other studies have shown certain instances in which rewards do not threaten intrinsic motivation. Shiller and O'Flynn (2008) cite a more recent 2000 study completed by Deci and Ryan that found rewards did not have a detrimental impact on motivation when used for dull or unattractive tasks. However, Kohn wonders if teachers could make these unattractive tasks more interesting without the use of rewards to persuade children to do the task (Glauser, 2004). Other studies have also shown that when rewards provide evidence of competence, they can also enhance motivation. Further, Shiller and O'Flynn (2008) point out, citing Lepper and Henderlong, rewards can provide provisional incentives to stimulate persistence at an activity when mastery and success are infrequent. The extrinsic rewards, then, can help lead to intrinsic motivation.

The research is plentiful on how teachers can stifle intrinsic motivation or fuel extrinsic motivation. Control and experimental research studies, case studies, and qualitative research have all been methods use to delve into intrinsic motivation in children, adults, and in the classroom. However, it is necessary that more research be completed looking at what teachers believe about intrinsic motivation and rewards, and how teachers are actually using rewards in the classroom. This study will take a closer look at teachers' beliefs and actions concerning intrinsic motivation, and how Montessori educators may be approaching rewards and intrinsic motivation differently than other educators.

Chapter 3

Purpose of the Study

This study seeks to understand what educators are currently doing in their classrooms to motivate children. Are educators relying on internal motivation or external incentives? The study will be compared with current research in the field of motivation to determine whether educators are promoting or stifling the development of intrinsic motivation, and whether Montessori educators are promoting intrinsic motivation more than other educators.

Setting

The survey was distributed to educators through the Internet. It was emailed directly to educators who were encouraged to share it with people they also knew who were educators, it was posted on Twitter, and the survey was also shared in many Facebook groups related to education.

Of public school teachers in the United States, according to the National Center for Education Information in 2011 (http://www.ncei.com/Profile_Teachers_US_2011.pdf, retrieved on July 25, 2013), 21% are age 29 years or younger, 27% are 30-39, 22% are 40-49, and 31% are

age 50 or older. Female teachers account for 84% of the public teaching force, while male teachers account for 16%. By race, 64% of teachers are White, 7% are Black, 6% of Hispanic, and 4% are classified as Other.

By way of highest degree earned, 44% of public school teachers have earned a bachelor's degree—29% in Education, 15% in something else; 55% have earned a master's degree—43% in education, 12% in something else; and 1% of teachers have earned a doctorate degree in education. 26% of teachers have 1-5 years of experience, 16% have 6-9 and 10-14 years of experience, 23% have 15-24 years of experience, and 17% have more than 25 years of experience (Feistritzer, 2011).

According to the National Center for Education Statistics in 2008 (http://nces.ed.gov/pubs2009/2009324/tables/sass 0708_2009324_t12n_02.asp, retrieved on July 25, 2013), 74% of private school teachers are female, while 26% are male. 39% are under the age of 40, and 38% of private school teachers hold a master's degree or higher. By race, 86% of teachers are White, 4% are Black, 6% are Hispanic, and 4% are classified as Other.

In February 2013, according to the Pew Research Center (http://knowledge.creatingresults.com/2013/02/19/us-social-network-users-by-age-group-new-statistics-from-pew/, retrieved July 25 2013), 86% of 18-29 year olds use Facebook, 73% of 30-49 year olds use Facebook, and 57% of those aged 50-64, and 35% of those 65 years of age or older use Facebook. In 2010, according to Inside Facebook (http://www.insidefacebook.com/2010/10/13/men-outnumber-women-among-facebook-users-in-muslim-majority-countries/, retrieved July 25 2013), 50.4% of Facebook users were women, and 49.6% of Facebook users were men.

Data Collection

The conclusions in this paper were achieved through the use of a survey (see the appendix for the full survey). After compiling a list of questions in a Word document, the survey was ready to go into an online survey website. The survey was originally begun on Survey Monkey; however, the website would not allow for more than ten questions. The survey hosting was then moved to Qualtrics, another online survey hosting website that also allows for the creation of charts for each question. An informed consent statement was created for the survey, and it was placed on a separate page at the beginning that was seen immediately by survey takers.

Questions were created as non-biasedly as possible. Attention was also taken to avoid "double-barreled" questions—questions that asked more than one question with only a single answer option. The first section of questions was created to give a background about the person taking the survey; the questions were designed to provide insight into what kinds of education the person has been involved with, as well as how long they've been an educator, and in which type of area they've worked. These questions paint a picture of the educator to shed light on whether certain backgrounds lead to a certain type of educator.

The second set of questions was designed around the Likert scale. Statements were created that gave the respondents a chance to answer "strongly agree," "agree," "neutral," "disagree," or "strongly disagree." The questions began by judging how the educator feels about education; does he or she enjoy education and feel supported? These questions can also shed light on motivation—do less supported teachers use less intrinsic motivation in the classroom? The Likert scale questions then lead into more specific questions concerning intrinsic and external motivation in the classroom. The educators' feelings toward motivation, as well as their everyday practices, were assessed through the questions.

Upon creation of the survey, it was posted to the researcher's Facebook wall, asking any and all educators to complete it. Other friends also shared the survey link on their walls and with their friends. The survey was posted to Twitter, and it was also emailed out to educators, also asking them to spread the survey to other educators they knew.

Further, the survey was also posted in many online Facebook groups concerning education. Care was taken to post the survey in as many varied groups as possible. Facebook groups the survey was posted in include: American Montessori Society, Waldorf Early Childhood Association of North America, Waldorf Education, Early Childhood Educators ROCK, North American Montessori Teacher's Association, Montessori Alliance of Tennessee, Ohio Montessori Alliance, The National Association for the Education of Young Children, Association Montessori International of the United States, Preschool Teachers Talk, The Institute of Montessori Educators, Illinois Education Association, Florida Education Association, Washington Education Association, Oregon Education Association, Michigan Education Association, New Jersey Education Association, and North Carolina Association of Educators.

Should enough responses not be garnered, the researcher will put the survey out further on other social media networks. After the completion of 100 surveys, the responses will be reviewed and compared. Responses will be examined under the scope of all teachers surveyed, and then the responses will be broken down into two categories—Montessori teachers and all other teachers—to be compared. The researcher, from a previously read background of current research, will evaluate the data gained from the surveys. The researcher will interpret the data and speculate conclusions.

Data Compilation and Analysis

Many softwares and services will be utilized throughout the research and completion of this project. Microsoft Word will be used to write up the Informed Consent Statement and the Survey, while Qualtrics will be used to host the survey on the Internet. The Xavier University Library website will be used to complete much of the online research, and Google Chrome and Google Docs will be used for online searching and file sharing. Qualtrics will be used for the completion of tables, while Microsoft word will be used again for typing up the rough drafts and final copy of the research paper.

When completed, the project will be many pages long formatted in a Microsoft Word document. The hard copy of the paper will be printed at Staples and will be spiral bound with a clear cover.

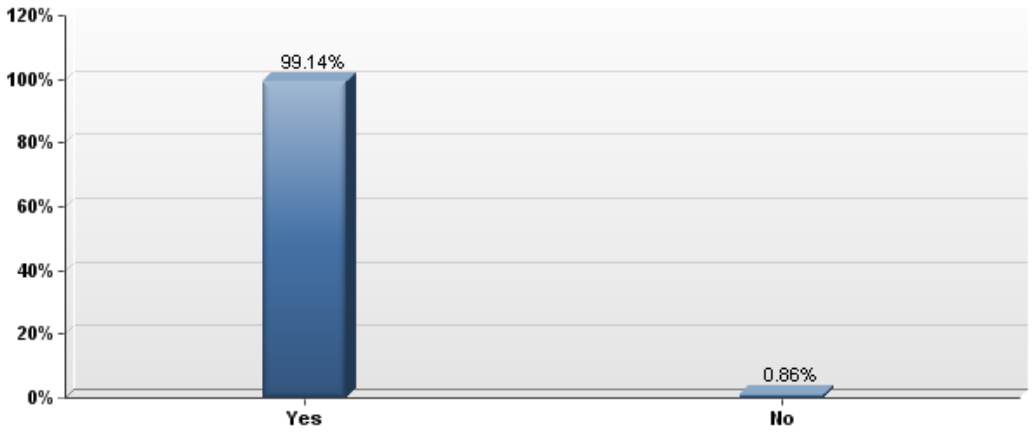
Summary of Chapter 3

This research study seeks to understand what motivational strategies teachers are using in the classroom, and whether Montessori educators view or implement these strategies differently than other educators. Research will be completed through the use of a 21-question survey that will be distributed to teachers through email, Facebook, and Twitter. Responses will then be evaluated from Qualtrics, and Microsoft Word will be used to type up the rough drafts and final copy of the paper.

Chapter 4

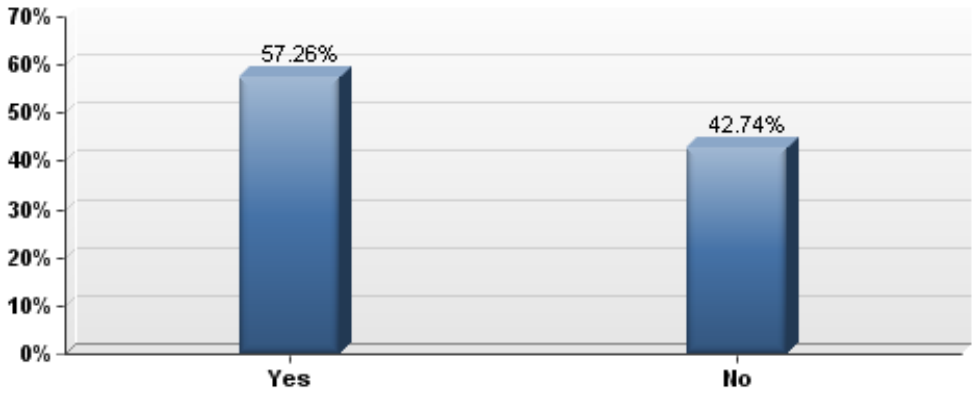
Quantitative research was acquired through the use of surveys. 116 educators were surveyed through the online survey host Qualtrics. Teachers were asked to answer questions about their experience, the demographics that they have taught in, and their beliefs regarding external rewards in the classroom.

Table 1 - Are you currently, or have you been, an educator?



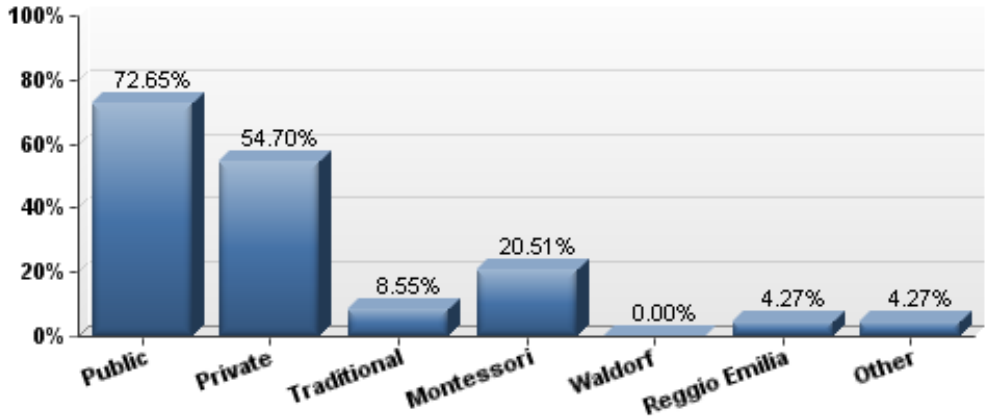
Of the respondents, the majority either currently are educators or have been in the past. The final question of the survey provided the opportunity for the respondents to write in responses, and the one person who answered "no" to this question wrote in that she had been a teaching assistant.

Table 2 - Are you currently, or have you been, involved in other areas of education? Administrator, teaching assistant, principal, etc.



The majority of educators have also been in other areas of education. Of the respondents, 57% have also served as an administrator, teaching assistant, principal, or some other role related to education. However, 43% of educators have only served as a teacher.

Table 3 - What kind of education have you been involved in? (Check all that apply)

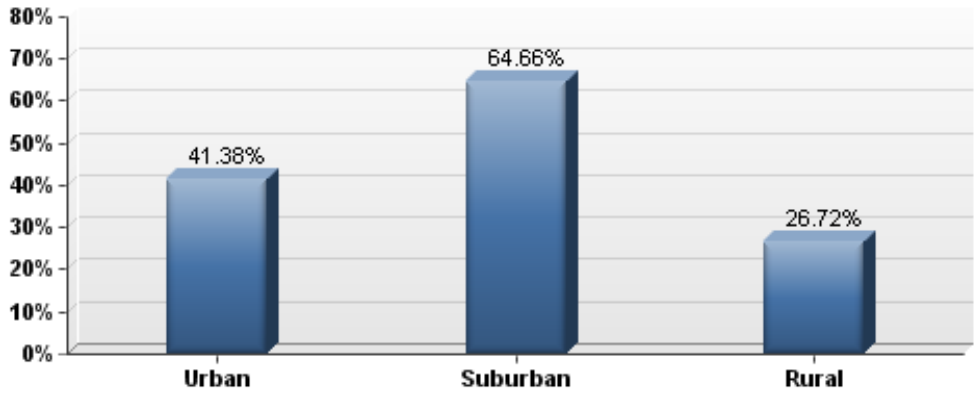


When asked what type of education they have been involved in, teachers were given the opportunity to check all that applied. The majority of teachers—73% have worked in public schools, either currently or in the past. However, at 55%, more than half have also worked in private schools at some point in their career. 21% have worked in a Montessori school, while 4% have worked in a Reggio Emilia school, and 4% have worked in special education or homeschool. None of the respondents have experience in a Waldorf school.

Table 4 - What age group of children do you work with, or have you worked with, on a daily basis? (Check all that apply)

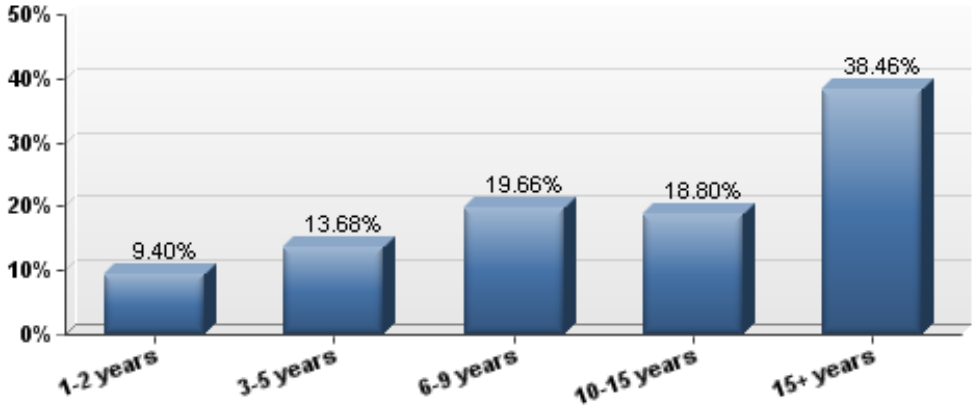
64% of teachers who completed this survey most commonly reported experience working with 3-6 year old children. Experience with 6-9 year old children followed with 54% of teachers, then experience with 9-12 year olds, 12-15 year olds, and 0-3 year olds at 41%, 35%, and 22% respectively. Approximately a fifth of the teachers surveyed have experience with 15-18 year olds.

Table 5 - In what geographic setting have you been involved in education? (Check all that apply)



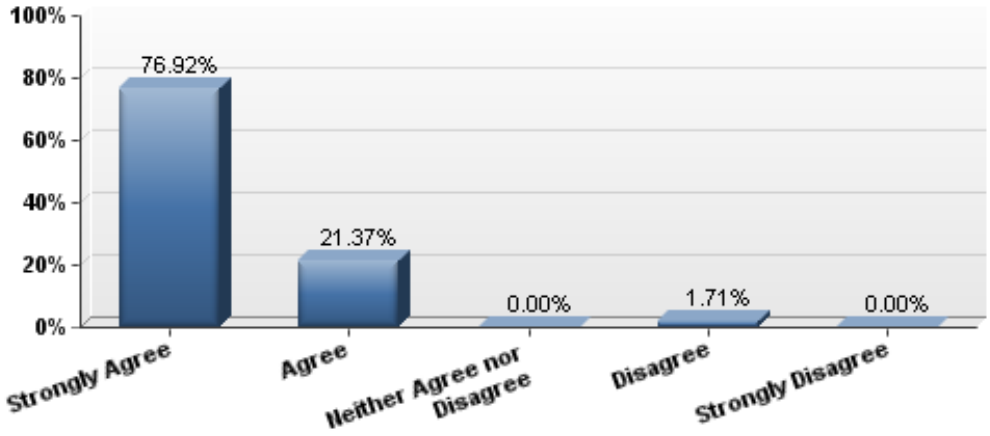
The majority of teachers, 65%, have experience in suburban environments. 41% of teachers have experience in urban environments. Approximately a fourth of teachers, at 27% have experience working in rural schools.

Table 6 - How long have you been an educator (administrator, teaching assistant, etc.)?



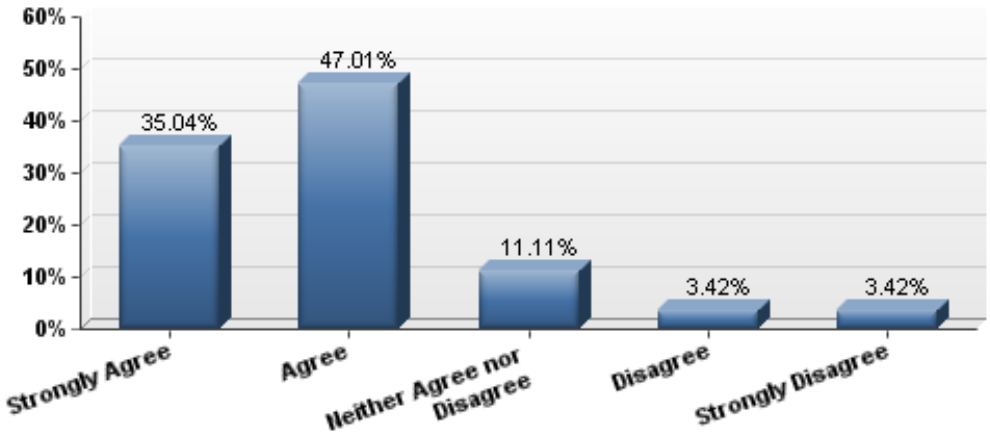
Educators within their first two years of teaching make up 9% of the respondents, while educators with over fifteen years in the classroom account for 38% of the respondents. Between these two ranges, educators with 3-5 years of experience accounted for 14%, while those with 6-9 years of experience and those with 10-15 years of experience each accounted for one-fifth of the respondents.

Table 7 - I enjoy being involved in education.



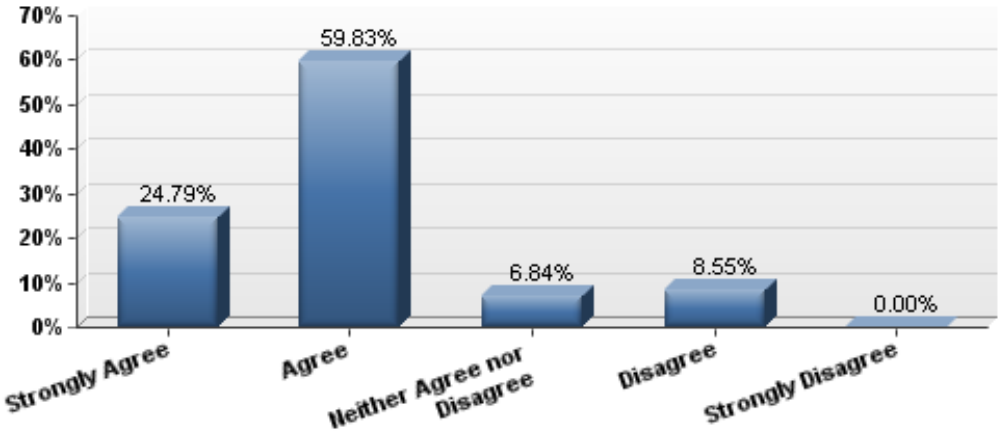
The vast majority of respondents, 98%, either agree or strongly agree with the statement, "I enjoy being involved in education," while 2% of respondents disagreed with the statement. No teachers surveyed strongly disagreed or neither agreed nor disagreed with the statement. The mode, or most appearing response, was "strongly agree," comprising 77% of the responses. Assuming that 1 = strongly agree and 5 = strongly disagree, the mean for this response is 1.26.

Table 8 - I feel supported by the community of educators around me.



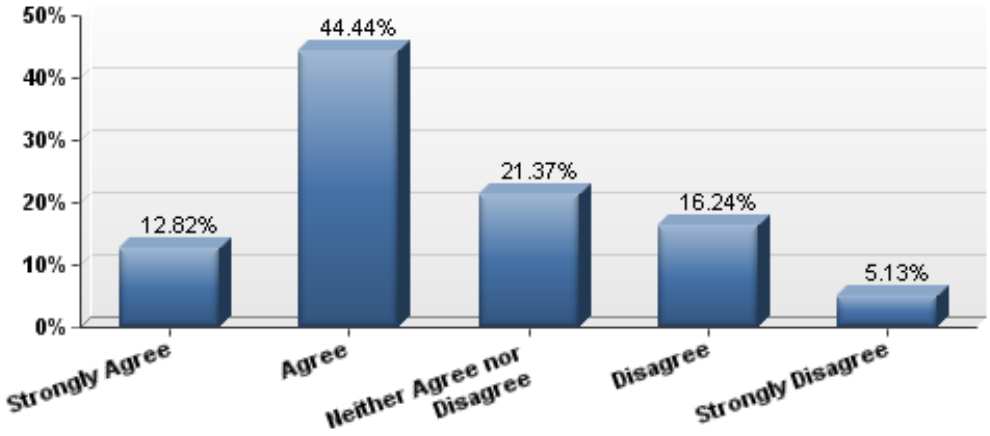
82% of teachers surveyed also strongly agreed or agree to feeling supported by the community of teachers they are in. The mode, or the majority of teachers, 47%, agree with the statement. 11% neither agree nor disagree, and 3% of teachers both disagree and strongly disagree, with a mean of 1.93.

Table 9 - The age group I work with can be difficult at times.



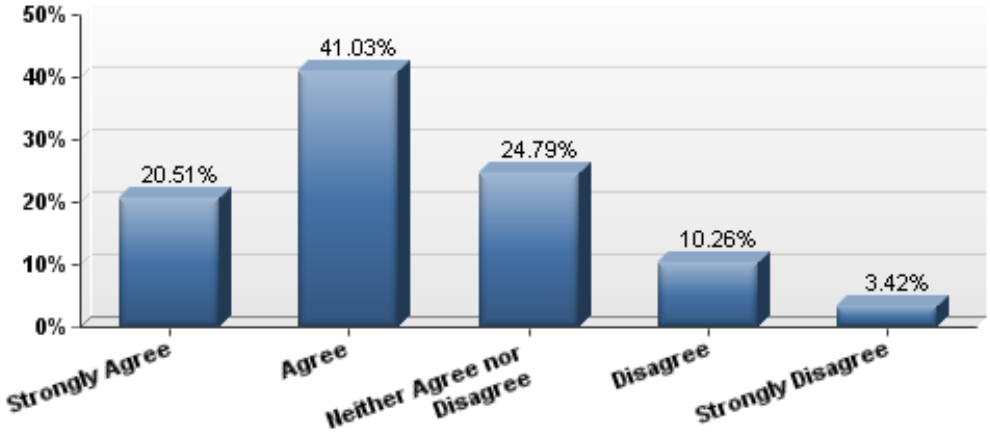
85% of teachers either strongly agree or agree that the age group they work with can be difficult at times. However, the mode was agree, comprising 60% of the responses, and the mean was 1.99. 7% of teachers neither agree nor disagree, and 9% disagree with the statement. No teachers strongly disagreed.

Table 10 - The teacher should have complete authority in the classroom.



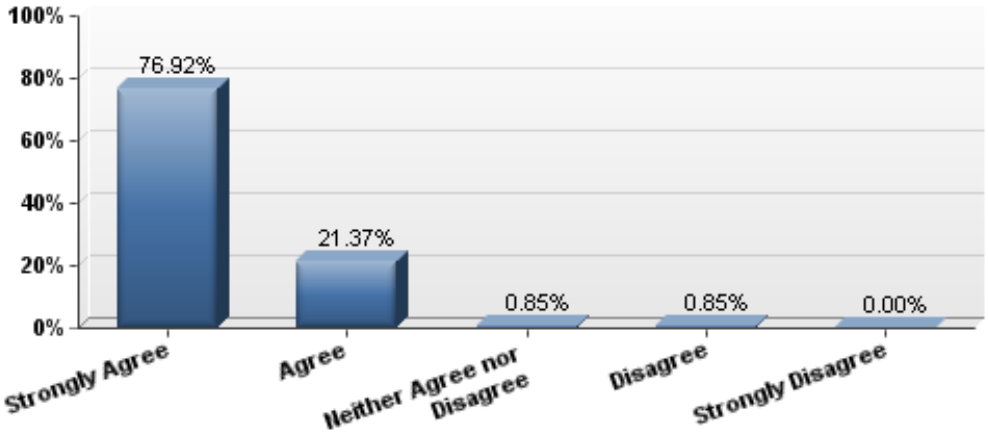
Together, 21% of teachers disagree or strongly disagree with the statement, "The teacher should have complete authority in the classroom." Another 21% neither agreed nor disagreed. 13% strongly agreed with the statement, and the majority of teachers, 44%, or the mode, agreed with the statement, believing that teachers should have complete authority in the classroom. The mean was 2.56.

Table 11 - A good classroom is based on a student's respect for the teacher.



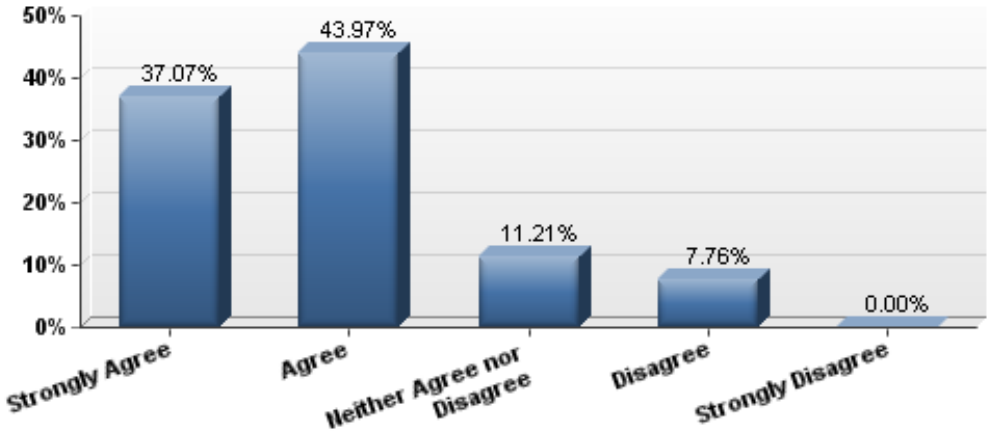
The majority of teachers, 41%, agree with the statement, "A good classroom is based on a student's respect for the teacher." 25% neither agree nor disagree with the statement, while 21% strongly agree. Together, teachers who disagree and strongly disagree with the statement comprise 13% of respondents, and the mean is 2.35.

Table 12 - A good classroom is based on mutual respect between teacher and student.



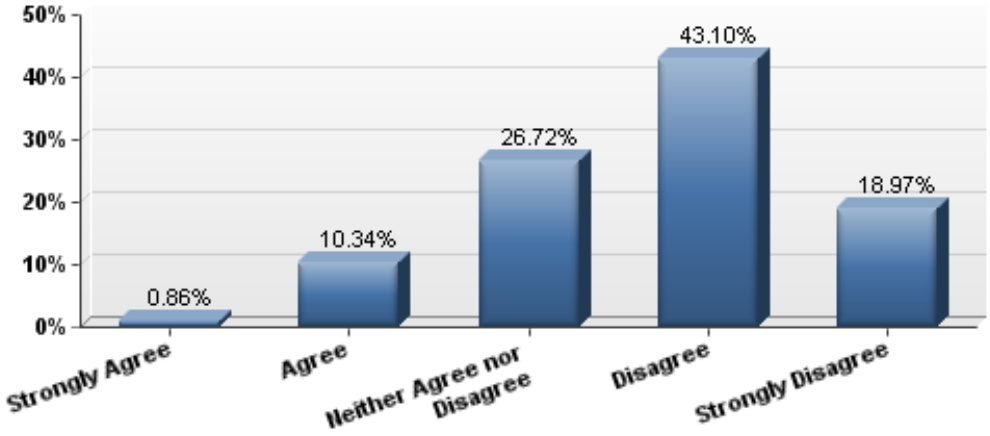
When given the statement, "A good classroom is based on mutual respect between teacher and student," less than 2% of respondents together neither agree nor disagree, or disagree. No respondents strongly disagreed with the statement. However, 21% of teachers agreed with the statement, and the majority, 77% of teachers, strongly agreed that a good classroom is based on mutual respect between teacher and student, with a mean of 1.26.

Table 13 - Children like to be rewarded.



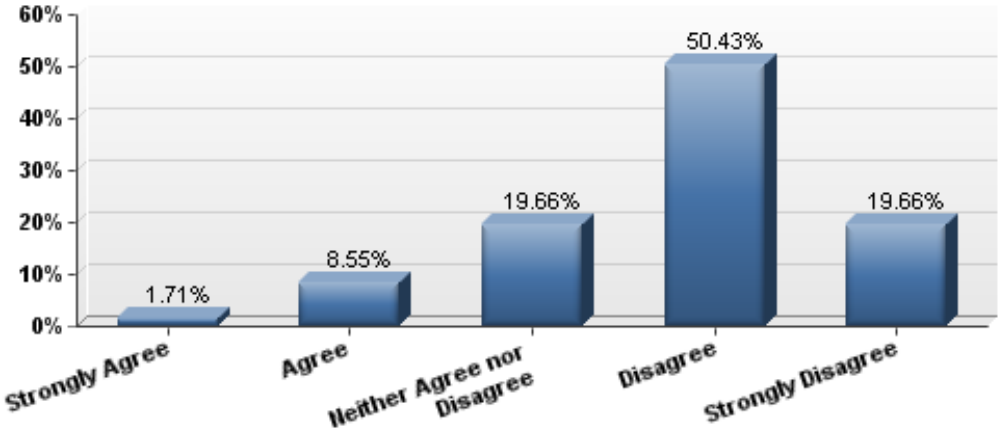
81% of teachers strongly agreed or agreed with the statement, "Children like to be rewarded," with 44% comprising the majority of respondents with "agree." 11% of teachers neither agreed nor disagreed with the statement, and 8% disagreed. No respondents strongly disagreed, and the mean was 1.90.

Table 14 - Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to behave well in academic settings.



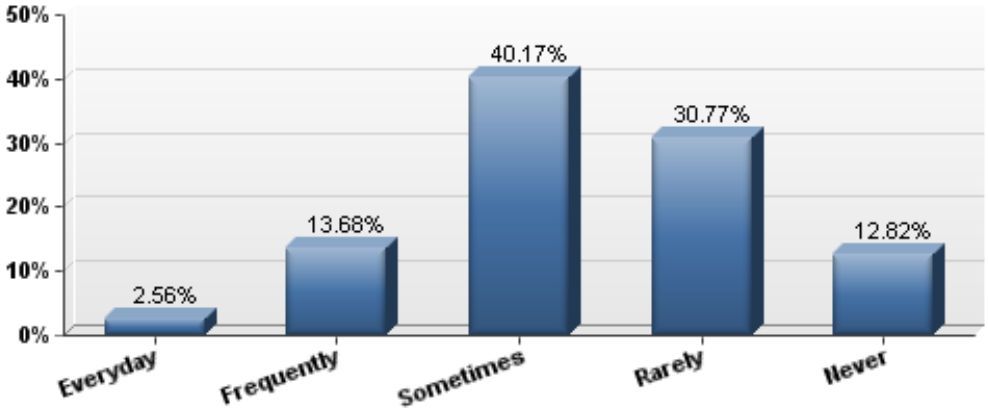
The majority of teachers, 43%, disagreed with the statement that children require outside incentives in order to behave, and 19% strongly disagreed with the statement. However, over a fourth of respondents, 27%, neither agreed nor disagreed. 10% of respondents agreed with the statement, while less than 1% strongly agreed. The mean was 3.69.

Table 15 - Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to perform well in academic settings.



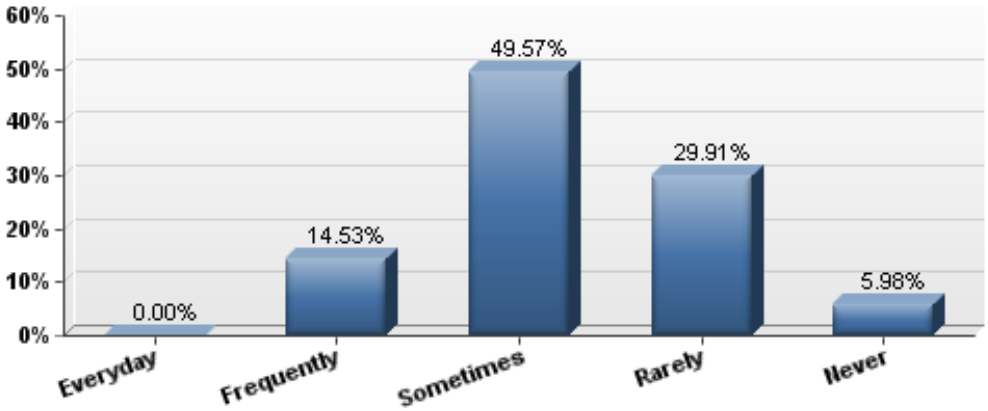
When asked whether children require incentives to perform well in school, the majority of respondents, 50% said they disagreed, and 20% strongly disagreed. However, another 20% neither agreed nor disagreed. 9% of teachers agree that children do require incentives to perform well, and 2% strongly agreed with the statement. The mean was 3.78.

Table 16 - I have used outside incentives in my classroom based on contingent behavior: If you do this (line up quickly, don't talk during a test, complete all homework, etc.), then you'll get that (a sticker, pizza party, less homework, etc.).



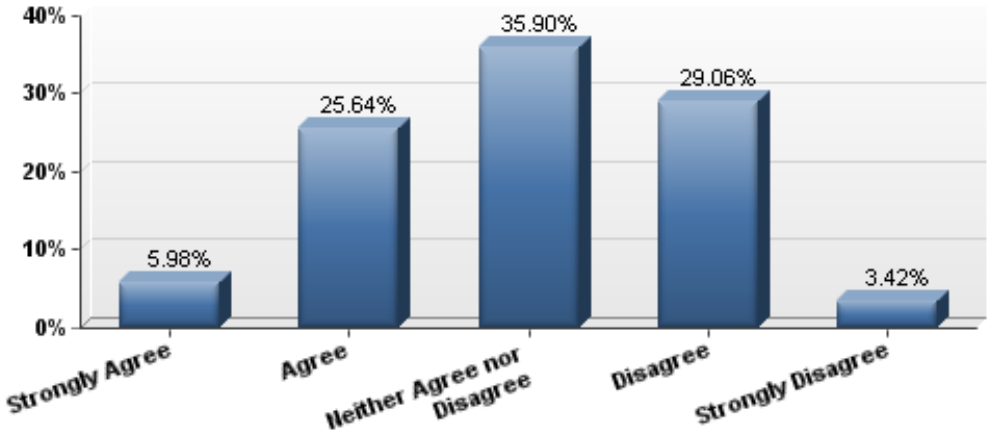
When asked about the frequency in which they use contingent rewards, the majority of teachers, 40%, say they sometimes use them, with 31% of teachers saying they rarely use them. 13% of teachers responded that they never use contingent rewards. 14% of teachers report using these rewards frequently, while 3% of teachers report using these rewards everyday. 3.38 is the mean.

Table 17 - I have used surprise outside incentives in my classroom (unexpected rewards, which the children/students did not expect or know were coming).



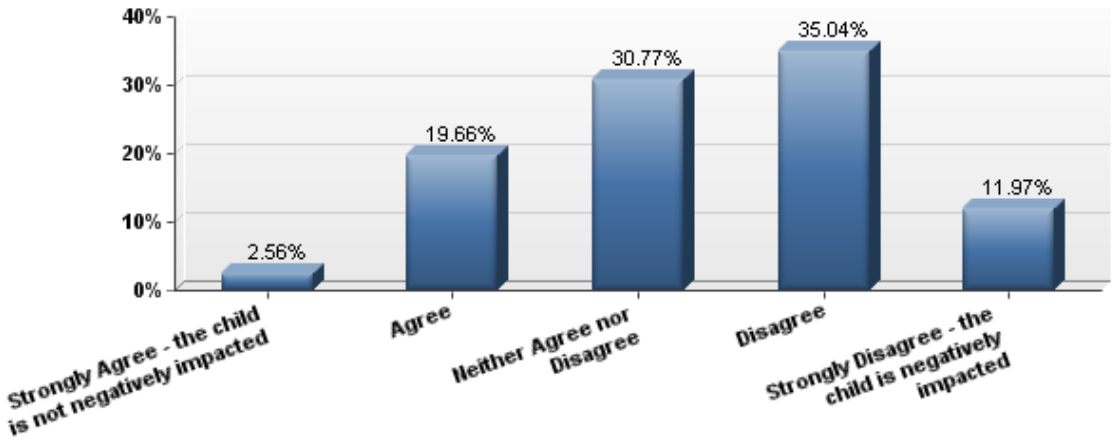
In regards to surprise incentives in the classroom, no teachers reported using these everyday, 6% never use them at all. The majority of teachers, 50%, say they use surprise incentives sometimes, followed by teachers who use these types of rewards rarely and frequently, at 30% and 15% respectively. 3.27 is the mean.

Table 18 - Children perform better when they know a reward is coming, as opposed to when I tell them after the fact.



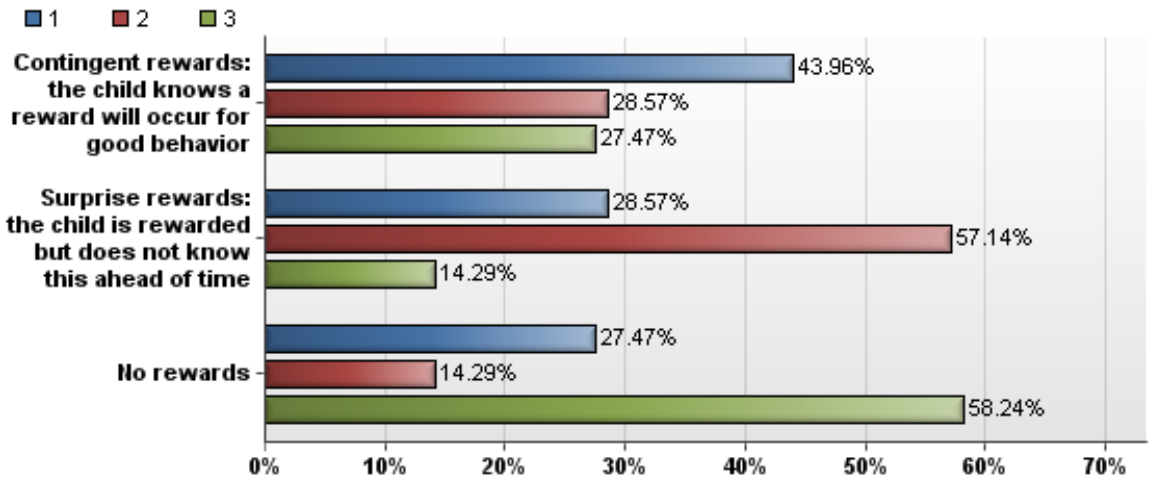
Teachers' responses were varied when given the statement, "Children perform better when they know a reward is coming, as opposed to when I tell them after the fact." The majority of teachers, 36% neither agreed nor disagreed. 26% and 30% agreed and disagreed respectively, while 6% and 3% strongly agreed and strongly disagreed respectively. The mean is 2.98.

Table 19 - I believe using outside incentives has no negative impact on a child.



When provided with the statement, "I believe using outside incentives has no negative impact on a child," teachers who strongly agreed made up only 3% of respondents, and teachers who agreed made up 20%. 31% of teachers neither agreed nor disagreed. However, teachers who strongly disagreed—those who believe the child is negatively impacted by incentives—made up 12% of respondents, while teachers who disagreed made up the majority of respondents, at 35%. The mean is 3.34.

Table 20 - Rank which method you feel achieves the best results from students: 1) Contingent rewards: the child knows a reward will occur for good behavior 2) Surprise rewards: the child is rewarded but does not know this ahead of time 3) No rewards



Respondents were then given three choices about rewards and asked to rank them as to which achieves the best results. The choices were: 1) Contingent rewards: the child knows a reward will occur for good behavior, 2) Surprise rewards: the child is rewarded but does not know this ahead of time, and 3) No rewards. The majority of teachers chose: response number 1—contingent rewards—as their first choice (44%), response number 2—surprise rewards—as their second choice (58%), and response number 3—no rewards—as their final choice (58%).

The final question of the survey was an open-ended question designed to elicit further thought from the respondent. Teachers were asked: "Please share any other thoughts or stories you have regarding your experience in using rewards or other outside incentives in your classroom." Out of 116 respondents, 54 teachers wrote in a response to this question.

- I taught 9th grade, and did not have a homeroom. My classes were half semester long. As such, I did not have much opportunity for pizza parties, and stickers were not appropriate. I would have used more incentives in my class structure had been different.

- I teach Kindergarten-for 24 years. Behavior is somewhat easier to control with an incentive.

- During the School year, my group (4-6) works well. Sometimes I find that using incentives after the fact, makes them feel so much better as they did it because they were just being 'good' kids, nit because they were bribed. During the summer however, my group ranges in age from 5-10. I find this group requires bribes, if you will. " if you quiet down we will go to the gym after lunch, or we will make volcanoes" I feel as though I am not being an educator but a babysitter during these months. Not some of my finer moments

- Rewards help with motivation. A teacher has to know her students, though. She has to make the rewards equally accessible by supporting each student as needed. As far as behavior is concerned, we provide consequences for inappropriate or dangerous behavior, so why not rewards for those who make good choices? Sometimes rewards are just recognition or praise, also.

- Children are often "rewarded" by their achievements - they feel pride in their accomplishments. These are the kinds of rewards that are most powerful and most psychologically healthy in the long run.

- Until children can appreciate the joy of learning, rewards are essential as kids often don't see why they should do certain things. Example:" If you learn to read, you will get a better job" won't be meaningful to a 6 yr old. But if that same 6 yr old knows that he/she will be rewarded for reading on grade level, it is more likely to happen.

- I am a retired "old school" teacher who does not think students should be rewarded for doing the right thing. Unfortunately I also believe today's trophy society has taught students to expect rewards for everything! It was my experience that when students know what is expected of them and know there will be consequences for BAD behavior, they will respect their teachers and will behave accordingly. I taught one year (1967-68), then was a stay-at-home mom for 12 years before returning to the classroom. I was shocked at the change in students' attitudes during the hiatus—perhaps resulting from the '60's "if it feels good, do it" parenting style.

- I didn't use rewards much in my classroom, and if I did, it was a surprise. It is true that children of all ages enjoy rewards, but I have found that if the students respect and enjoy the teacher, the students will perform and behave well simply because they want to. They don't expect anything in return but simple encouragement on behalf of the teacher. This makes giving out rewards as a surprise a nice treat for them versus something they've been conditioned to expect regularly.

- Currently I teach gifted students at the elementary level. I struggle to keep my students motivated as they have been told repeatedly that they are smart and have been constantly rewarded for doing well in their general education classroom. They have told me that the work they are given is "easy." I'm not sure how to motivate my students without outside rewards their "what's in it for me" attitude is discouraging. I have difficulty keeping them motivated and focused on their assignments. They tend to stop when they come across something they don't instantly know the answer to and require some effort.

- I have found internal rewards, respect and praise to be far, far more effective in motivating behavior and performance.

- Teaching high school leaves little opportunity for external incentives in this day and age of teaching bell to bell, preparing students for state and other assessments. I used to offer free time or "Friday Fun Days" for behavior or performance goals met, but haven't done so for awhile. My students still comply with directions and asked-for behaviors. I do try to "reward" them with more freedom if choice in how to complete activities and certain assignments - not exactly the same, but it's something I can still offer.

Chapter 5

Summary of Research Findings

Research found that almost three-fourths of teachers have worked or are currently working in a public school, while more than half also have experience in a private school. Of the teachers surveyed, 20% have had experience working in a Montessori environment. Two-thirds of teachers surveyed have experience working with 3-6 year old children, while more than half

have experience working with children aged 6-9 years. Almost 40% of teachers surveyed have more than 15 years of experience, with only 9% of teachers only have 1-2 years of experience.

The majority of teachers agree that the teacher should have complete authority in the classroom, as well as that a good classroom is based on a student's respect for the teacher. However, an overwhelming majority of teachers strongly agree that a good classroom is based on mutual respect between the student and teacher.

81% of teachers surveyed either agree or strongly agree with the statement, "Children like to be rewarded." However, of these teachers, the majority disagree that children require incentives in order to perform or behave well in academic settings. A majority of teachers say that they sometimes use contingent rewards (if you do this, then you'll get this) and surprise rewards in their classroom. Further, a majority of teachers agree that using rewards can have a negative impact on children.

Speculative Conclusions

Of Montessori teachers, 80% either disagree, or strongly disagree, with the statement that children require outside incentives to *behave* well in school. An overwhelming 92% of Montessori teachers also disagree, or strongly disagree, with the statement that children require outside incentives in order to *perform* well in school. By comparison, 58% of all the teachers surveyed disagree or strongly disagree that children require outside incentives to behave well, and 65% of all the teachers surveyed disagree or strongly disagree that children require outside incentives to perform well.

Table 21 - Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to behave well in academic settings (of Montessori teachers surveyed).

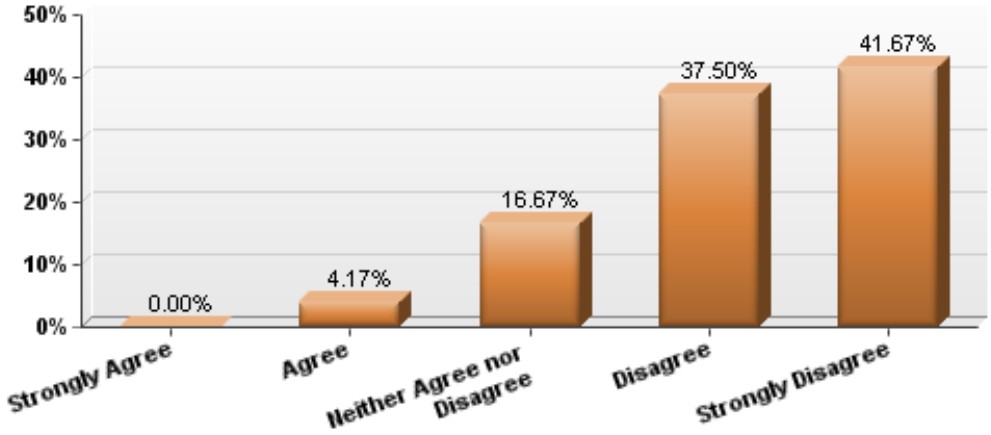


Table 22 - Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to behave well in academic settings (all teachers EXCEPT Montessori).

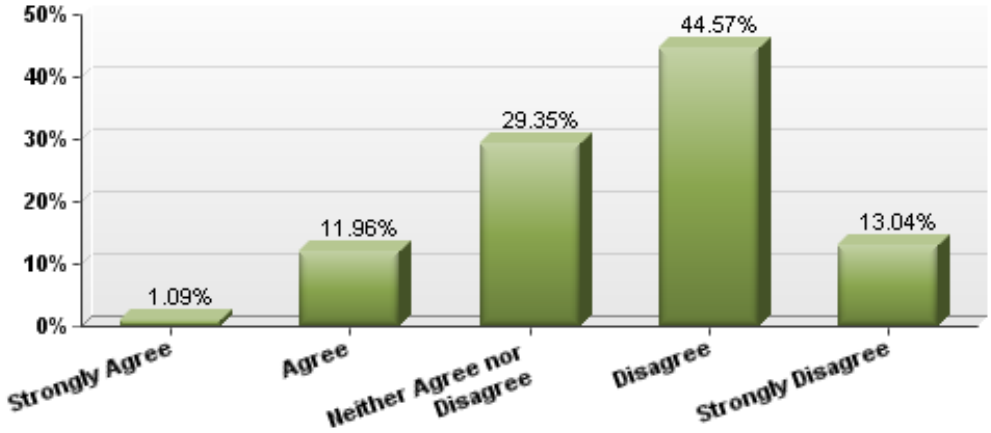


Table 23 - Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to perform well in academic settings (of Montessori teachers surveyed).

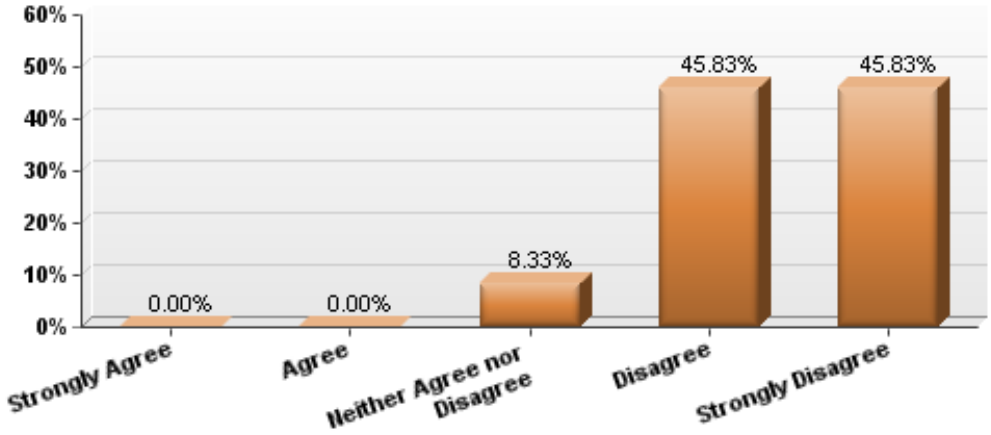
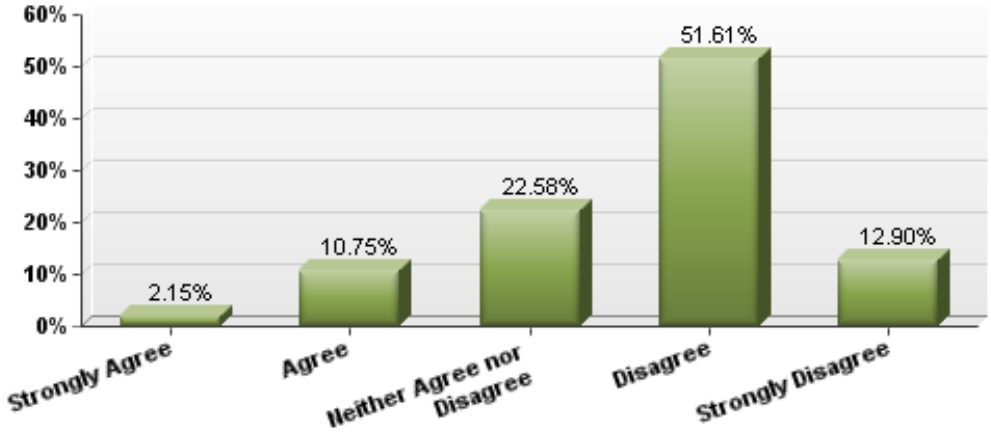


Table 24 - Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to perform well in academic settings (all teachers EXCEPT Montessori).



In comparison, 45% of all educators surveyed strongly agree that children like to be rewarded, while only 4% of Montessori educators also strongly agree.

Table 25 - Children like to be rewarded (all teachers EXCEPT Montessori).

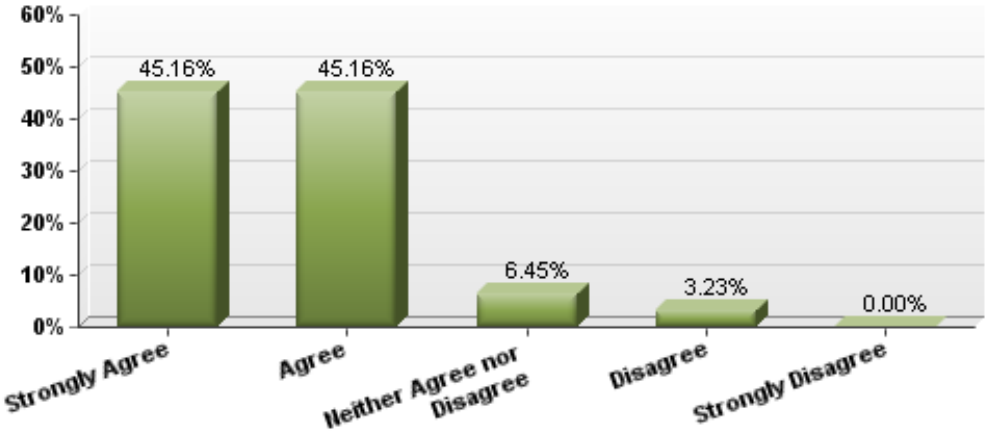
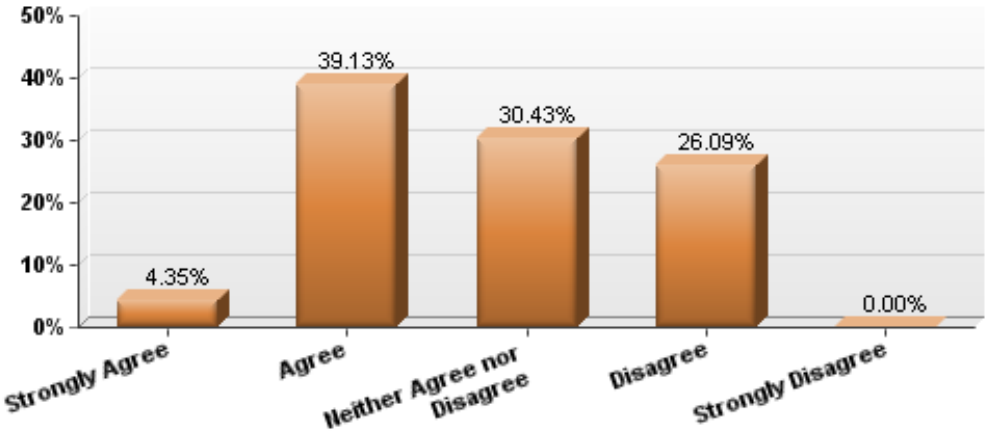


Table 26 - Children like to be rewarded (of Montessori teachers surveyed).



79% of Montessori educators reported that they rarely or never used contingent rewards in the classroom, compared with 35% of all teachers surveyed.

Table 27 - I have used outside incentives in my classroom based on contingent behavior: If you do this (line up quickly, don't talk during a test, complete all homework, etc.), then you'll get that (of Montessori teachers surveyed).

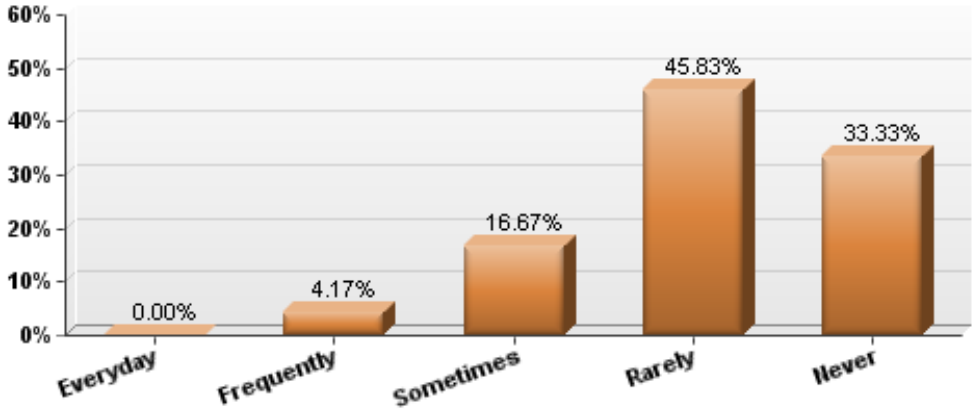
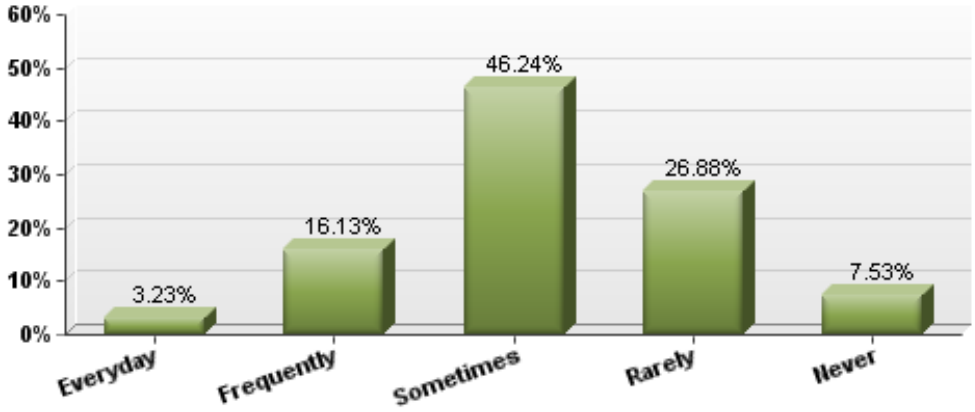


Table 28 - I have used outside incentives in my classroom based on contingent behavior: If you do this (line up quickly, don't talk during a test, complete all homework, etc.), then you'll get that (all teachers EXCEPT Montessori).



Further, 71% of Montessori educators reported that they rarely or never used surprise rewards in the classroom, compared with 27% of all teachers surveyed.

Table 29 - I have used surprise outside incentives in my classroom (of Montessori teachers surveyed).

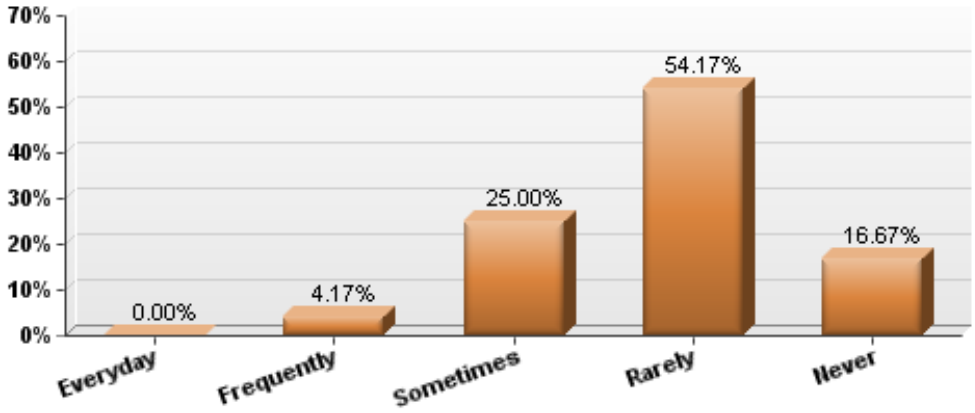
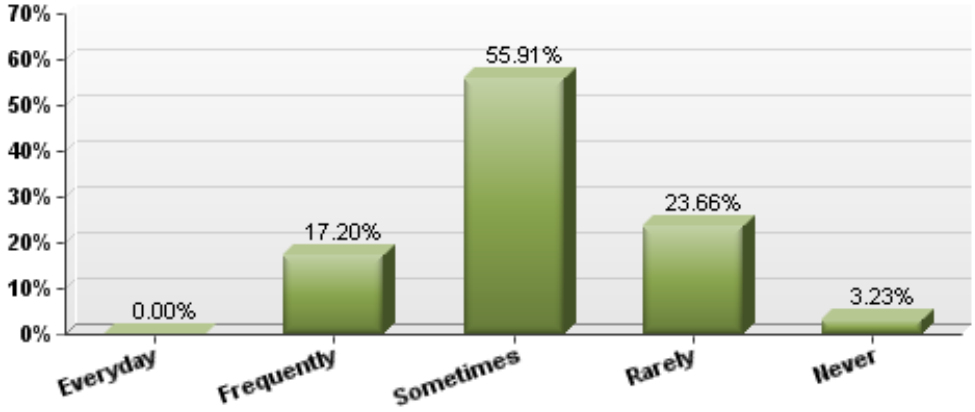


Table 30 - I have used surprise outside incentives in my classroom (all teachers EXCEPT Montessori).



In addition, 75% of Montessori educators agree, or strongly agree, that the child is negatively impacted by rewards, compared with 39% of all teachers surveyed.

Table 31 - I believe using outside incentives has no negative impact on a child (of Montessori teachers surveyed).

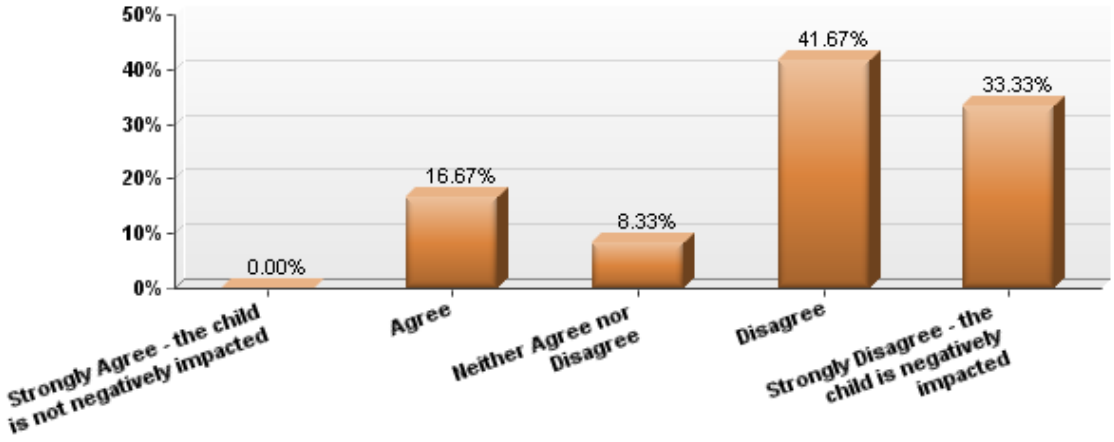
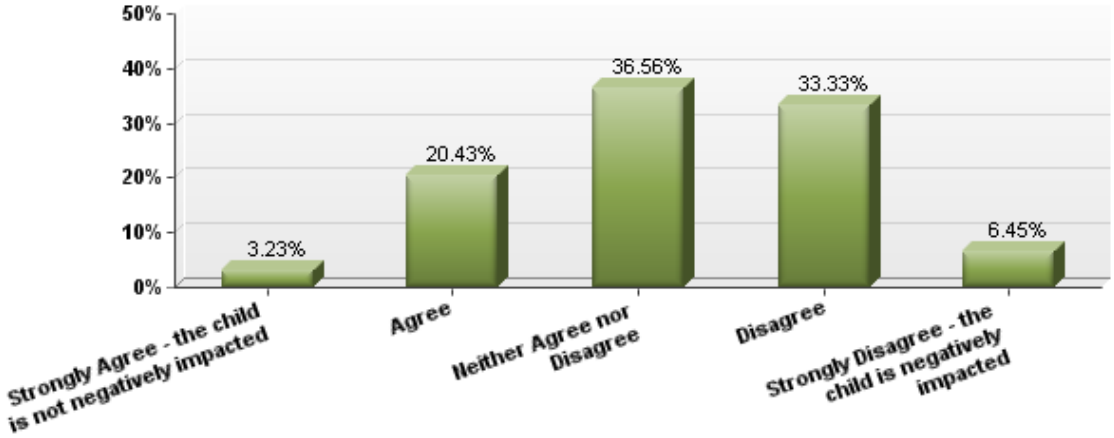


Table 32 - I believe using outside incentives has no negative impact on a child (all teachers EXCEPT Montessori).



When compared with educators from other schools of thought, it is clear that Montessori-trained educators have differing viewpoints about rewards. Montessori educators lean more heavily toward the view that rewards negatively impact the child, and they use rewards less in their classroom than other educators. While the majority of both groups of educators disagree that children require incentives to behave or perform well in school, Montessori educators are

22% more likely to believe that children do not need incentives to behave well and 27% more likely to believe that children do not need incentives to perform well.

The survey results indicate that teachers on a whole use incentives and extrinsic motivators in their classrooms. However, Montessori educators rarely or never use rewards in their classrooms and are more likely than other educators to believe that rewarding children has a negative impact on the child. This could possibly be due to the training that Montessori educators undergo, in which future teachers are taught to help children be independent and work for their own satisfaction—not a teacher's.

Another reason could be the lack of public awareness and education concerning rewards and motivation. Rewarding students for good behavior produces immediate results—more good behavior. However, the long-term effects of rewarding behavior only lead to more rewards being necessary to produce the same behavior—not a change in the student. Yet, frazzled, over-worked teachers desperate for a well-behaved classroom turn to "quick fixes" to solve problems immediately. Teachers are unaware that extrinsic incentives only provide a temporary fix to the problem at hand, but with more teacher education and public awareness, teachers' beliefs about motivation could shift. While some teachers are aware that rewards are not a long-term solution, many feel trapped in a scenario of needing rewards to motivate students in the moment.

Looking at the divide between what Montessori educators believe about rewards and what other educators believe, it could also be due to the *type* of person drawn to be an educator in the Montessori method. There is a strong emphasis on independence in Montessori education, and it is possible that teachers who personally align themselves with this idea will be drawn toward this method of education. It stands to reason that teachers who are drawn to this idea will also promote it, whether consciously or unconsciously, in their classrooms.

Further, Maria Montessori actively discouraged the use of rewards in the classroom, maintaining that children are interested in an activity long before the reward is presented. The beliefs of Montessori educators polled support Montessori's philosophy and teaching. 75% of Montessori educators agree, or strongly agree, that the child is negatively impacted by rewards, compared with 39% of all teachers surveyed.

Based on research conducted by Deci, Ryan, Dweck, and others, as well as this study, it appears highly likely that children from Montessori classrooms retain their intrinsic motivation more strongly than children from classrooms outside of Montessori. Montessori educators are less likely to use rewards in their classroom and more likely to believe that rewards negatively impact a child. Research supports that the use of rewards critically dampens, or even extinguishes, intrinsic motivation. Therefore, in the Montessori classrooms where rewards aren't used, children sustain their intrinsic motivation. As one Montessori teacher survey respondent said, "Montessori only uses intrinsic rewards and it works." While this is not to say that every Montessori classroom avoids rewards, or non-Montessori classrooms always use rewards, it does seem clear that Montessori students are given an advantage to retaining their intrinsic motivation.

Congruence with the Literature

Studies by Deci and Ryan (1981) concluded that rewards damage intrinsic motivation. While the majority of educators say that they use rewards only "sometimes" in their classrooms, the majority of educators also believe that the use of rewards has no negative impact on the child. However, surveyed Montessori educators are 29% less likely to sometimes use contingent rewards in the classroom than other educators.

Further, a later study cited by Crow and Small (2011) discovered that interest in an activity is maintained, or even increased, when an individual has free will and choices. However,

only 65% and 58% of non-Montessori educators surveyed disagree, or strongly disagree, that children require incentives in order to both perform and behave well in the classroom, respectively. In comparison, 92% of Montessori educators disagree, or strongly disagree, that children require incentives to perform well in school, and 80% of Montessori educators believe the same about children's behavior in school. These results, with the previous studies, further support the hypothesis that Montessori classrooms better sustain intrinsic motivation than their non-Montessori counterparts.

Deci and Ryan (1981), as well as Montessori (1966), also speak to a teacher's presence and attitude in the classroom as an important factor regarding intrinsic motivation in children. When given the statement, "The teacher should have complete authority in the classroom," 50% of non-Montessori educators agreed with the statement. However, only 25% of Montessori teachers agreed with the same statement. This discrepancy could be explained by the different approaches Montessori teachers take, compared with non-Montessori teachers, in regards to their attitudes about their classrooms.

Recommendations for Future Research

Further research, both qualitative and quantitative, is necessary to further understand what all teachers believe about motivation in the classroom. Studies could examine if how much experience a teacher has correlates to how frequently he or she uses rewards in the classroom, or whether the thoroughness of the teacher training the teacher experienced has an effect on the teacher's use of rewards in the classroom. Teachers could be interviewed, observed in their classrooms, or given surveys.

It will be important to further study the relationship Montessori teachers have with rewards in comparison to non-Montessori teachers. Another beneficial study would be to take an

equal number of Montessori educators and non-Montessori educators and give them the same survey to get a more accurate data collection of educator responses. A new survey could also include more praise-based statements concerning person praise, effort praise, or neutral praise like: "Excellent job!" or "You worked hard on that!"

While this study is not a definitive answer to what teachers believe about rewards, how they use them in the classroom, or how Montessori educators are different, it is a good place to start. Opening up the conversation to talk about rewards and motivation will only seek to further educate and raise public awareness, thereby contributing to building educational classrooms where children stay intrinsically motivated.

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Appendix

Informed Consent Statement

My name is Victoria Livingston, and I am completing my Master's in Education at Xavier University. I am doing research on how teachers use external motivation and outside incentives in their classrooms. You are invited to participate in this part of the research.

You are being invited to take part in this research because you are, or have been in the past, an educator for preschool to grade 12. If you are not, or have not been an educator, please do not proceed with the survey. Your participation is voluntary. If you choose not to participate, it will have no bearing on your job. If you choose to participate in the research study, you will be asked to fill out the following survey. The information recorded is confidential and anonymous. Your name or other information is not collected. The survey will take approximately 15 minutes to complete. There are no known risks associated with your participation in this project.

If you have any questions, or would like a copy of the results, please email Victoria Livingston at livingstonb2@xavier.edu

Survey

1) Are you currently, or have you been, an educator?
   a. Yes
   b. No

2) Are you currently, or have you been, involved in other areas of education? Administrator, teaching assistant, principal, etc.
   a. Yes
   b. No

3) What kind of education have you been involved in? (Check all that apply)
   a. Public
   b. Private
   c. Traditional
   d. Montessori
   e. Waldorf
   f. Reggio Emilia
   g. Other _____

4) What age group of children do you work with, or have you worked with, on a daily basis? (Check all that apply)
   a. 0-3 years old
   b. 3-6 years old
   c. 6-9 years old
   d. 9-12 years old
   e. 12-15 years old

f. 15-18 years old

5) In what geographic setting have you been involved in education? (Check all that apply)
   a. Urban
   b. Suburban
   c. Rural

6) How long have you been an educator (administrator, teaching assistant, etc.)?
   a. 1-2 years
   b. 3-5 years
   c. 6-9 years
   d. 10-15 years
   e. 15 or more years

For the following questions, please rate how strongly you agree or disagree with each statement.

7) I enjoy being involved in education.
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

8) I feel supported by the community of educators around me.
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

9) The age group I work with can be difficult at times.
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

10) The teacher should have complete authority in the classroom.
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

11) A good classroom is based on a student's respect for the teacher.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

12) A good classroom is based on mutual respect between teacher and student.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

13) Children like to be rewarded.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

14) Children perform better when they know a reward is coming, as opposed to when I tell them after the fact.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

15) Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to *behave* well in academic settings.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

16) Children, regardless of age, require outside incentives (such as rewards, bribes, etc.) in order to *perform* well in academic settings.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

17) I have used outside incentives in my classroom based on *contingent* behavior: If you do this (line up quickly, don't talk during a test, complete all homework, etc.), then you'll get that (a sticker, pizza party, less homework, etc.).
    a. Every day
    b. Frequently
    c. Sometimes
    d. Rarely
    e. Never

18) I have used surprise outside incentives in my classroom (unexpected rewards, which the children/students did not expect or know were coming).
    a. Every day
    b. Frequently
    c. Sometimes
    d. Rarely
    e. Never

19) I believe using outside incentives has no negative impact on a child.
    a. Strongly agree – the child is not negatively impacted
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree – the child is negatively impacted

20) Rank which method you feel achieves the best results from students:
    a. Contingent rewards: the child knows a reward will occur for good behavior
    b. Surprise rewards: the child is rewarded but does not know this ahead of time
    c. No rewards

21) Please share any other thoughts or stories you have regarding your experience in using rewards or other outside incentives in your classroom.