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GoZen in the Kindergarten Co-Teach Classroom

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GOZEN IN THE KINDERGARTEN CO-TEACH CLASSROOM

By

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Abstract

This study analyzes the relationship between social emotional regulation and the program entitled *GoZen!*, for ten Kindergarteners in a Montana School over the course of a consistent nineteen weeks. To do this, a group of ten Kindergarten students' behaviors were observed to compare the baseline number of visible self-regulation strategies to that following the initial modules, as well as following the entire *GoZen!* program. The data showed great promise with a 75% reduction in physical disruptions, an 85% reduction in harmful disruptions and a 18% reduction in verbal disruptions. The program used consisted of watching two-hundred and four short cartoon videos, as well as discussions and worksheets outlined in them. Students stated that they enjoyed the program. Furthermore, behaviors that exhibited visual self redirection and self regulating increased dramatically. Initially, students were seen purposefully using a strategy to regulate themselves eight times in one week. Following the initial *GoZen!* modules, there was a 300% increase, bringing the total to thirty-two times per week. Upon completion of the entire collection of the *GoZen!* resources, students visually self redirected or regulated thirty times for a slight drop from the completion of the basic set of modules, but still up 275% from the initial observation.

Keywords: GoZen, mindfulness, social-emotional regulation, co-teach, self-regulation

Introduction

There are many ways to define self-regulation. However, the typically agreed upon definition includes controlling one's own behaviors. For the sake of this study, self-regulation has been based on Duckworth and Carlson's (2013) definition, which states that practicing this skill, that they also refer to as self-control, self-discipline and willpower, requires higher-order thinking along with purposeful intent. The authors mention that in order to self-regulate a child must have the ability to control impulses. Further, they reiterate that their findings show that this skill has been positively linked to school success. With that said, they found that while children do have inherent traits (a child's temperament) including the ability to self-regulate, can be persuaded through the use of positive influence (Duckworth & Carlson, 2013).

The aforementioned findings have been supported by several sources, including a longitudinal collective of three-hundred seventeen studies that included 324,303 children that found that evidence based social-emotional learning programs benefit students in a variety of ways including not only social-emotional skills, but academic performance as well. Further, the benefits were found to assist in a variety of settings and to remain over time (though at a lesser level). These findings were spread across differing demographics, as well as urban, suburban and rural settings (Payton et al., 2008).

Mindfulness takes social-emotional skills one step further; it allows a student to learn to live in the current moment. If students can live in the present moment, they can think more critically this will allow them to think and act both implicitly and explicitly, as well as allowing for creative solutions to problems that might arise, both academically and socially (Napoli et al., 2005).

In order to properly train students in mindful practices, educators need to know what exactly mindfulness is. Many believe it must be done in a sitting manner, with specific and religiously tied practices, however the aforementioned act of becoming mindful can apply to any variety of activities from formal sitting to everyday tasks. Moreover, and often misunderstood, while practiced by Buddhists, mindfulness is not a religious act in itself. In reality, the practice of mindfulness can be more accurately explained as an exercise in noticing and being aware of one's thoughts, feelings, surroundings and sensory experiences in the present moment, without self-judgement, which can be done in either a formal or informal manner (Meiklejohn et al., 2012).

Teachers already have a full schedule. Therefore, an undefined, optional, non-curricular addition can potentially be quite an overwhelming task, especially without knowing the specific process and tremendous potential for numerous benefits. With that being said, educators, especially those who have students with social-emotional regulation difficulties, including IEPs that contain the aforementioned (social and emotional goals), recognize the need for tools to assist students in self-regulation.

However important teachers know self-regulation is, they need to know more about the history, research and process of mindfulness in helping with this, realizing it is not just a current "hot topic," rather a centuries old practice grounded in positive results. This knowledge will allow them to more fully be on board in order for it (or any program a teacher chooses to employ in his/her classroom) to bring its success to fruition and reach its full potential.

Therefore, it is vital that educators understand that mindfulness training has been a well known, established practice among many, including Eastern cultures for an extensive period of

time. Moreover, in the educational setting, there has been a shift toward student centered approaches; this allows for the potential to utilize the centuries old teaching of mindfulness practices to students within Western classrooms as well.

There is ample evidence that when students practice mindfulness there is tremendous potential for academic and behavioral improvement. One study showed that mindfulness training assisted in learning skills, academic performance, critical thinking skills, behavior/self control, and bullying prevention for a range of students from those that are considered high achieving to those with learning disabilities (Leland, 2015).

Another study that included elementary students specifically compared those who participated in mindfulness training to those who did not. The control group did not participate, whereas the experimental group did. This study showed a significant difference in the behaviors of the control group versus the experimental group primarily in testing situations, with students in the experimental group having far less test anxiety and a higher ability to select what to focus their attention on than their untrained counterparts. Its results recommended for future studies in regard to mindfulness training in schools (Napoli et al., 2005).

School, and life in general, can be wrought with stressors for students, especially in the Covid 19, mask wearing, social distancing environment. With mindfulness appearing to help during one of the more stressful times (testing) within an already anxious environment, this suggests the potential for mindfulness practices to help alleviate stress in everyday situations.

There is little evidence on the value of mindfulness in Kindergarten students with any disabilities. With that said, one study positively related mindfulness training to behaviors with adults experiencing developmental disabilities (Hwang & Kearney, 2013), and another showed

an increase in compliance and a decrease in challenging behaviors, including negative social interactions, in preschool (Singh, 2013). This implies that it is extremely likely that an educational setting that includes an amalgamation of the two, developmental disabilities and early childhood education, would benefit from mindfulness training.

As exemplified above, mindfulness training has been shown to be beneficial in a series of settings, among several demographics. However, as previously mentioned, asking educators to develop a mindfulness training program can be an intensive undertaking. Teachers need to know that a program is simple to apply, effective and proven. This insight is supported in a study on the *MindfulKids* training by Eva van de Weijer-Bergsma et al. (2012) that showed a tremendous amount of support for a mindfulness training by teachers in their classroom while an experienced mindfulness trainer was there to lead the training, that was then felt to be too difficult to continue without the support of said trainer. This is where the importance of a program that is easy to apply and continue for a single classroom teacher becomes vital, if we wish for it to be practiced and continued throughout the year, for the full benefit of the students.

GoZen! is a program that has the benefit of being outlined in animated modules and specific lessons. Upon initial investigation it appeared to be an extraordinarily simple tool to utilize. Further, it is widely used; according to the *GoZen!* "Director of Customer Love," aka the director of customer services, the most recent count of users was approximately 1500 schools and 3000 practitioners, making this the most utilized and seemingly user friendly method of teaching mindfulness. With that said, further research is needed to identify the efficacy of the *GoZen!* program.

Therefore, the purpose of this study is to examine the efficacy of the online social and emotional learning program *GoZen!* in regard to students' ability to practice self-regulation in the Kindergarten Co-Teach classroom.

Research Questions and Hypotheses

1. Does *GoZen!* relate to self-regulation in the Kindergarten classroom?
    - Null Hypotheses - There is no relationship between the use of *GoZen!* and student self-regulation in the Kindergarten classroom.
    - Hypotheses - There is a positive correlation between the use of *GoZen!* and students' ability to practice self-regulation.
2. To what degree does *GoZen!* relate to self-regulation in the Kindergarten classroom?
    - Null Hypotheses - *GoZen!* has no effect on self-regulation in the Kindergarten classroom.
    - Hypotheses - *GoZen!* has a high positive impact on self-regulation and in the Kindergarten classroom.

Method

Permissions

In order to go forward with the study, the first step was to gain permission from the Customer Services Director of the *GoZen!* program, in which she gifted access to the entire *GoZen!* library for one year, with the stipulation that all of the findings be shared with fellow educators.

Following that, permission was granted from the East Evergreen Principal and Evergreen School District #50 Superintendent, with certain stipulations and parameters being set including;

complete anonymity for students, arranging the data tracking tool to where positive behaviors were on top, to be certain that data be collected from the class as a whole and not on individual students (even with anonymity), and to be certain that there was nothing that specified students as even being on an Individualized Education Program.

The Superintendent then added the permission to proceed request into the school board meeting agenda minutes to be scheduled on September 9, 2020. The school board thoroughly looked over the proposed study, including the Parent Permission Form and Self Regulating/ Redirecting Behaviors Checklist, and during the September board meeting made further inquiries about the program. Then, they reiterated the importance of complete anonymity for students, approving the motion to allow parent permission forms to be sent home with students, and following which the *GoZen!* study would be permitted to commence, as outlined with aforesaid particular parameters.

The following day, September 10, 2020, the parent permission form, that gave all families the option for students to opt in or out of the study, as well as giving them the option to speak with the teacher for more information, was sent home. One guardian requested more information and was informed of all aspects of the program prior to deciding to permit the student to participate. Upon return of said permission forms (Appendix 1) from all students, on Thursday, September 17, 2020, tracking of baseline data in regard to student behaviors for one week began (Appendix 2) in my, Suzanne Johnstone's Kindergarten Co-Teach classroom at East Evergreen Elementary School, in Kalispell, Montana.

Measures/Participants

Demographics

The Kindergarten Co-Teach consisted of one lead teacher and, at the beginning of the study, was awaiting the hiring of a Special Education Teacher to become the other Co-Teacher. Due to the fact that at the beginning of the year there were zero perspective candidates, indicating that the level of validity originally planned for, specifically interrater reliability, might not be an option, the decision to move forward with this study began prior to said hire, with baseline date beginning to be obtained on September 17, 2020.

The Special Education Co-Teacher was then hired on October 5, 2020, first taking no active role, rather a week to observe and get to know the students and routines, in order to best serve them. Official Co-Teach activities began on October 12, 2020 and she was in the classroom from 8:25am—8:45am, 10:00am—10:45am and 12:05pm—1:00pm daily, for a total of 2 hours a day. On every Wednesday beginning on November 18, 2020, the school elected to have early release each Wednesday of the month for the second quarter (which then was voted to continue into the third semester, continuing for the remainder of this study). On these days, the Co-Teacher was in the classroom from 8:25–-9:25 and 12:05—1:00, for a total of 1 hour 55 minutes. These time are those in which substitute teachers, stand ins (when the Co-Teacher didn't exist, as well as when the was gone) and expectations were inconsistent, pointing to the enormity of uncertainty that students faced in behavioral expectations.

The classroom consisted of 18 students registered to it originally, and towards the end of the study there were 19 students. Due to Covid-19 the number of students who were in person learners was inconsistent, with as few as 9 students in person and as many as 15, as well as extended absences due to any student being a deemed a close contact, or having contracted the coronavirus, as well as precautions of what would be determined later to be minor illnesses such as a cold, or the flu, in an attempt at being cautious not to spread the coronavirus.

With that being said, all the data taken consists of the ten students who were in person at the beginning of the school year and who had a baseline series of data taken. The subsequent behavior analyses excluded any students who were not a part of said baseline data collection.

Instrumentation and Validity

The Measurement of Inappropriate and Disruptive Interactions (Creswell, 2019) was adapted to fit the needs of the current study in MIDI in Appendix 3, adaptation in Appendix 2. This was used as baseline, post *GoZen!* modules and post *GoZen!* program in its entirety. For the sake of clarification, the first set of modules in the entire *GoZen!* library is called *GoZen!,* throughout this study I will utilize the addition of the term modules when it is referring to the first set of modules and not when referring to the program in its entirety, which includes seven separate sets of modules.

There is great promise in the study and its potential for success in regard to the program. With that said, unfortunately, there are both foreseen and unforeseen limitations to the validity of the findings including; the mediating variable of an individual teacher's awareness and attention (both noticing positive and negative behaviors), the lack of a co-teacher at the beginning of the year (and subsequent addition thereof), the fluctuating attendance of in person students, and the inability to practice complete fidelity to the program. The following will outline this information in further detail.

Procedure

Immediately following the receipt of all permissions and the subsequent one-week collection of baseline data, the general education teacher began a nineteen week, one day study of the impact of the entire *GoZen!* mindfulness training program in regard to its ability to affect self regulation.

In the classroom being examined, self regulation has been mutually agreed upon by both teacher and students at the beginning of the year. This was done by asking students the question of what rules are needed in order to make the classroom somewhere that all students can learn to the best of their ability and enjoy learning.

After an extensive list of ideas that included; not interrupting or shouting out, listening to others (teacher and students whose turn it is alike), having safe bodies, being kind to one another, wearing masks, etc., classroom expectations were narrowed down to a list of ideas fitting into three simple categories, "We care for each other. We care for ourselves. We care for our environment." If students can say they are doing all of those they know they are following the agreed upon rules, and prior to the study it was explained to them that this meant they were practicing self regulation, which was also defined as self control. With that said, for the sake of this study, we have taken out the environment piece and looked at the following definitions and how they fit into the other two (caring for ourselves and others).

In the co-teach classroom, there is nearly always a pre-teach to every expectation, as well as many opportunities for a re-teach. Students were spoken to about expectations prior to and throughout the entire study, with the exception of the days that data was being obtained.

The data to be taken as the baseline, following the basic *GoZen!* modules program, and following the entirety of the *GoZen!* program was:

- The type of inappropriate behavior
    - Verbal disruptions included anything that was off topic and distracting to the learning environment.
    - Physical disruptions included any type of movement that was so extreme that the student was unaware of what had just been taught.

    - Harmful behavior included anything that was hurtful to one's self or others.
- The extent to which the behavior was disruptive
    - If a behavior only disrupted the student who was partaking in said behavior.
    - If a behavior disrupted only the group the child was working with, or a small group of students.
    - If the behavior was to the extent that the whole class learning environment was disrupted.
- The number of times any visible self-regulating or self-redirecting strategy was used by a student.
    - This included any time a student stopped and noticed a potential for a negative reaction and/or behavior and stopped themselves from doing said behavior (i.e., taking a deep breath, walking away, ignoring another student, etc.) During data collection, the only cue to be given when a student began to become disruptive was the exact phrase "If you have a strategy, now might be a good time to use it." This same phrase was used in all three data collection phases.

Excluded from being considered and counted as disruptive behaviors, were; movement of children that did not distract themselves or others form learning, verbal disruptions/interruptions that were on topic, accidental harmful behaviors, any behavior that occurred when there was no learning activity taking place (i.e. recess, lunch, play time, etc.), any talking that occurred during Writer's Workshop (due to the fact that these often spark writing ideas and that at the beginning of the year, they were agreed upon as being acceptable and helpful to learning), or any behavior that occurred during specials, which are taught by other teachers (PE, library, music and computers).

The aforementioned definitions for data to be tracked was utilized on the Appendix 2 form.

After taking one week of baseline data, I began the modules and lessons. The intent was to practice complete fidelity to the program. However, due to the extensive nature, reading level for comprehension and vocabulary of the worksheets, they were adapted to be done in whole group, small group, and occasionally independently (with teacher help) rather than complete independent thinking and student work.

This decision was made based on the fact that students were unable to understand the worksheets that go with the lessons independently, nor was there sufficient time allotted in one school year to work with each individual student, one-on-one to complete the extensive number of worksheets with all its complexities. This suggests that teacher input is essential if the program is to be a success.

Therefore, the decision was made that the class would converse about them as a whole group, small group, or occasionally independently depending on the requirements and engagement level. For example, the first module teaches about worry then asks students to talk about what worry is, when worry occurs and what makes students worry. We did this as a whole group. When asked about these things, I gave examples of things I worry about, the kids who were comfortable spoke about what they worried about, and then students were given a choice to raise their hand if they worry about the same things or not, or if they did not wish to share their feelings, to just think in their head "Yeah, I worry about that too. But, for me that is private and I do not wish to share that right now." This strategy resulted in students coming up to me during recess to talk privately (this is something students are invited to do whenever they wish about anything) about things they worry about. A few either brought a new worry to me, the teacher, or

told me that they worried about something we voted on but did not wish to raise their hand, for whatever reason they had (some said they were embarrassed, others said that they did not wish for students in the class to know that they felt a given way because they felt it to be private).

There are seven animated programs in *GoZen!: GoZen!, GoStrengths!, GoHackify!, GoToTheNow!, GoPositive!, GoWave*! and *GoAction!*. Each program has a series of videos and "Questions to think about," aka discussion questions, as well as worksheets for students. The videos last from under one minute to over five minutes. *GoZen!* had 35 videos, *GoStrengths!* had 104, *GoHackify!* had 31, *GoToTheNow!* had 11, *GoPositive!* had 6, *GoWave!* had 11 and *GoAction!* had 6. This brought the complete program to a total of 204 videos. Following the videos, come the discussion questions, and some videos are followed by worksheets.

Some days the group went through a few videos (typically spaced out throughout the day), whereas others they simply watched and/or participated in one video and discussion. On occasion the class went through all portions (video, discussion and worksheets) in one sitting. However, typically the class watched the video(s) and did the discussion questions in one setting. Subsequently, they completed the worksheets that followed as a group (sometimes small group, others whole group).

The worksheets and thoughts are intended for students to do as individuals. However, students in the class were unable to complete this task individually due to the fact that the worksheets were beyond their level of comprehension, as well as reading and writing abilities. Students in the Kindergarten Co-Teach class needed each idea and thought modeled, as well as needing several vocabulary words explained in order to fully comprehend what was being asked of them. Further, they needed help in fully explaining what and how they were supposed to process this information. There were many questions and discussions in regard to simple

vocabulary of what was being asked of them, let alone helping them to articulate their own feelings in a way that made sense through group discussions and modeled think alouds done in conjunction with both the teacher and other students.

Due to the fact that *GoZen!* modules are the first, and most well know set of modules in the entire *GoZen!* program, the class began with the videos within that portion of the program. As previously mentioned, that consisted of thirty-five videos. These videos introduced them to why their brains work the way they do, all the way back to cave person thinking. This teaching includes the fact that despite the natural inclination to do so, they do not need to be extremely reactive to every situation, regardless of the feeling that you must react. It explained why it is natural to do so, as well as the history behind this reaction (cave person survival). With that said, it taught that there are strategies to keep this natural phenomenon from taking over and reacting as if they are still in survival mode. The videos explained this process in vocabulary that was both student friendly and yet scientific.

It named (and created captivating characters in regard to) the parts of the brain that were functioning as "Widdle the Worrier," and "Till the Thinker," explaining that long ago, as cave people, Widdle (the worrying part of the brain), was much more necessary to survival than it is now. However, since it is no longer needed for survival, this part of the brain just basically overreacts to many situations. With that being said, it also teaches that "Till," the name it gives for the part of the brain/character in charge of thinking things through, can help stop Widdle from worrying, by realizing what is truly going on, taking a look around at the current situation and seeing if Widdle needs a little reminder of the fact that we do not need to go into fight or flight mode in regard to every stressor/situation that feels worrisome.

It goes on to simplify the actions of the amygdala, hypothalamus, hippocampus, and frontal lobe into a student friendly, cartoon form. It dos this via utilizing alien characters, most often Neutrino, who is from the make believe planet Eudaimonia. She explains the human brain, as well as how to use specific tools to be more resilient and happy. This character is supported by others including a comical teacher who asks the questions that some students might want to ask, but be too embarrassed to, a science teacher who teaches the science behind the ideas, as well as several multicultural families, all of which help support the ideas and challenges that tend to create stress in the human mind.

The aforementioned characters all assist students in practicing strategies. One of the strategies students most often used was breathing in for four-seconds, holding it for seven-seconds and releasing their breath for eight-seconds, which it called 4-7-8 breathing. This simple strategy wound up being the most utilized strategy throughout the study. As with all the techniques taught, it modeled through a cartoon and had students practice with the cartoon characters.

Another strategy covered in the *GoZen!* modules was the FARR method. This consists of freezing (calming down and taking deep breathes), accepting that you are feeling the way you are and that it is uncomfortable but that you will get through it, recognizing what is happening, and resolving your worries. The program uses the example of Captain Sully and his "heroics" as being a time when staying calm in the face of adversity paid off. The aforementioned was the extent of the first set of *GoZen!* modules, the first basic program.

Following this, the base program, of *GoZen!* modules there was another set of data taken on behaviors using Appendix 2. This was taken from Monday, October 19, 2020, through Friday, October 23, 2020, three and a half weeks after the beginning of the study. During this data

collection, the program was not paused, but continued with the next set of modules, *GoStrengths!*.

GoStrengths! focused primarily on wellbeing and resilience. It uses a bittersweet chocolate analogy to state that we can go through complex emotions that include both happy and sad emotions simultaneously. Another addition to the program was that, I, the teacher, adapted the behavior by bringing in bittersweet chocolate so that students could comprehend what the program was comparing emotions to. Many students had asked, following the cartoon module, what bittersweet chocolate was. This prompted a discussion and the aforementioned addition to the program. There was no lesson in the program that asked for the addition of tasting bittersweet chocolate.

Following the definition of the complexity of emotions going on in the human brain, the program points out ways to combat negative feelings, as well as strategies to help with the good (i.e. practicing gratitude). This is often a strategy utilized in teaching students academic (use the students' strengths to help in areas of need). Therefore, it is not a stretch to understand that the same could be true for emotions (use the positive ones to combat the difficulties).

It goes more deeply into the aforementioned by way of several series of problems, comparing and contrasting the way in which the characters react to a given conflict. It included discussions and worksheets that focussed on finding a state of happiness, that is defined as being more than just feeling good for a moment, but working on positive emotions, engagement, relationships, as well as helping with a purpose, and the benefits to setting and achieving goals.

Following *GoStrengths!* were the *GoHackify!* modules. *GoHackify!* focuses on two kids with obsessive compulsive disorder. One worries that everything is dirty and obsesses over washing her hands and making sure things are extraordinarily clean. The other is obsessed with

counting, finding even numbers lucky and odd numbers unlucky. It gives small tools to try to help with this obsessive nature. This set of modules appeared to be more beneficial for a class that actually contained students who had an obsessive compulsive disorder. However, students often verbalized an understanding of what the kids in the video were going through. Further, when the teacher would think that these modules were a waste of time for the students who did not have OCD, one or more students would verbalize said understanding of the characters, or a similarity they felt to them.

Next, was the modules entitled *GoToTheNow!* These do not say that you need to completely stay away from ideas of the past or the present. Rather, they focus on trying to help you stay in the present moment and appreciate it for what it is. The program focusses on zooming in and out of a conversation and/or situation. Zooming in essentially means active listening, where students pay attention to the conversation at hand, including body language and thoughtful questions, while paying less attention to the rest of the environment around them. On the contrary, zooming out is the exact opposite, resulting in trying to hear everything around them, focusing on the world at hand. It also helps teach when each is most appropriate. Further, it teaches students to use body scanning to be in the present, focussing on their individual bodies and how they feel in the moment.

After that, students focus on the modules in *GoPositive!,* and, as the name suggests, it helps students look at the positives in life. The cartoons within the modules focus on recognizing that negative thoughts are a normal part of life and that they tend to have more weight in our minds than positive ones do. It mentions that trying to change our negative thoughts is nearly impossible. Rather than changing the thoughts themselves, the modules help students to understand the need to recognize those thoughts and make them silly by singing a song, giving

them a silly voice or thanking your brain for your thoughts, but suggesting that it is okay. It furthers this idea by helping students to recognize all the positive things around them, in an attempt at looking more at the good things in the students' lives.

Following *GoPositive!* came the modules for *GoWave!* that essentially focuses on panic type attacks where the body starts reacting to stressors. These modules do things like compare roller coaster rides and the way your body reacts to those as fun, even though they are basically the same feelings (heart racing, sweaty palms, etc.) as a panic attack. It then explains that in the case of a roller coaster ride, we know that those feelings are not worth overreacting to. But, in times where nerves take over and you do not recognize them as expected to be coming it feels much more serious. The goal is to help allow those feelings to come, knowing they will be over and the child will be okay regardless.

Finally comes the *GoAction!* modules. These focus primarily on procrastination and how to get over that, by making plans to do one thing and then another. It also focuses on forgiving yourself when you do procrastinate because it is natural.

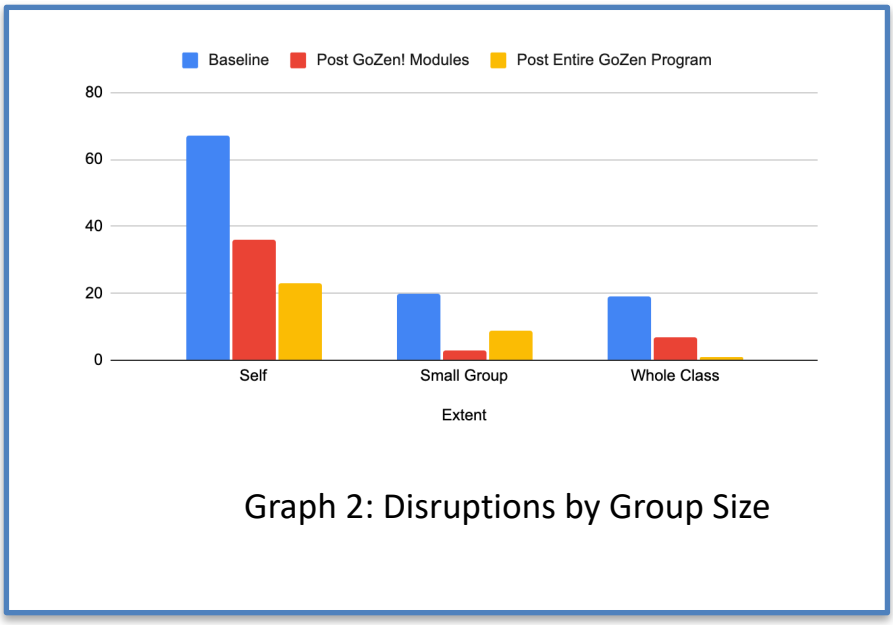
In the Kindergarten classroom, we went through the aforementioned modules, typically a few at a time, and then had discussions regarding them (as prescribed by the program). Then, I would simplify the worksheets and we would do the cross-curricular activity of thinking about the questions and writing a sentence about what was most beneficial and important to the student at the time.

Upon completion of all the *GoZen!* programs, data was tracked for 9/10 of the original students tracked at the beginning. One student was unavailable to be tracked. Alongside the data collected, students were interviewed in regard to their opinions on the program, including whether or not they enjoyed it, to what extend they liked it, if they use any of the strategies in

their lives, if so which one(s), and if they had anything else they wanted to say about the program (see Appendix 3).

Results

Following the *GoZen!* modules, the first and original program in *GoZen!*, there appeared to be a positive correlation in the reduction of physical and harmful behaviors (Graph 1) and the program. The correlation appeared to be amplified slightly by the completion of the entire *GoZen!* program. Data showed that the most significant difference was that of physical disruptive behaviors, with a baseline of sixty-nine disruptions, twenty post *GoZen!* modules only, and seventeen following the entire *GoZen!* program. This means that there was a 75% drop in physically disruptive behaviors from the baseline data to the completion of the program. In regard to harmful behaviors, baseline data showed twenty behaviors that were immediately harmful to students and three following the program, an 85% drop. These results suggest that emotional regulation strategies and practices have a significant positive affect on students' behaviors.

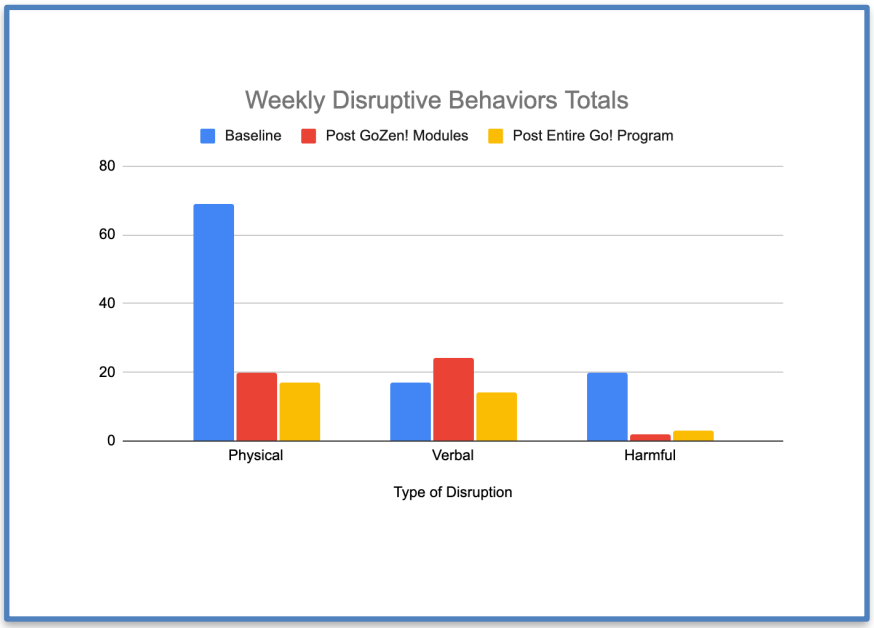


Graph 2: Disruptions by Group Size

With that said, there appeared to be an increase in verbal disruptions following the initial *GoZen!* set of modules, with only a slight decrease in verbal disruptions after the completion of the entire *GoZen!* program, going from seventeen verbal disruptions to a finality of fourteen disruptions, for a mere 18% decrease.

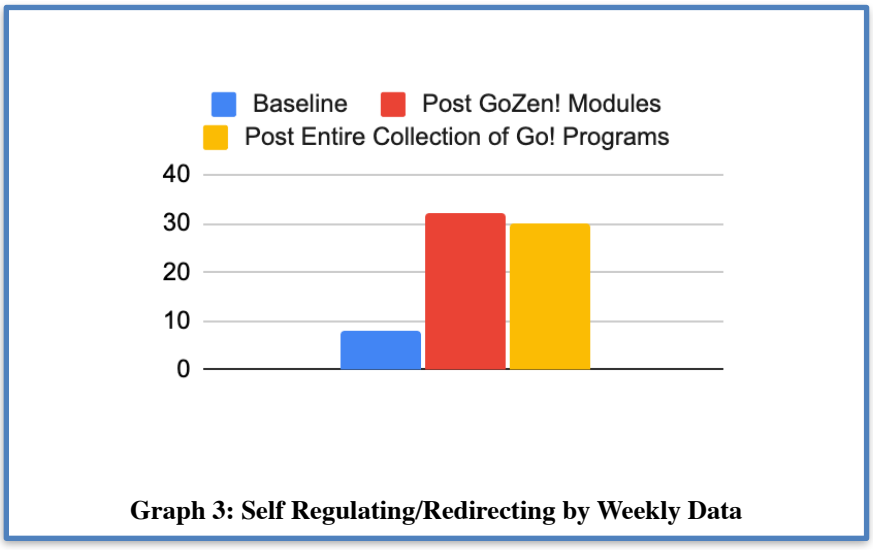
In regard to the extent of which any given behavior disrupts learners three sets of data were collected: disruptions to oneself, small groups and the whole class. Baseline data showed that there were sixty-seven disruptions that only affected the student who was participating in the distractive behavior, with that dropping to thirty-six post *GoZen!* modules alone (for a drop of around 46%) and upon completion of the entire *GoZen!* collection that number dropped to twenty-three for an approximate 66% total drop (Graph 2).

Disruptions that caused a small group to get off a learning task began with a baseline of twenty disruptions. Following the basic *GoZen!* modules that number dropped 85% for a total of three disruptions. However, completion of the entire *GoZen!* program resulted in an increase from the *GoZen!* modules, but a decrease in the baseline data for a total of nine disruptions, or 55% less than the baseline data, but three times that of the *GoZen!* modules alone (Graph 2).



Whole group disruptions had the most significant decrease from baseline to ending data. At the beginning, the baseline data showed that the whole group was disrupted from learning nineteen times. Following the *GoZen!* modules alone, that number dropped to seven, showing a 63% decrease. However, from the beginning of the program to the completion of it, in its entirety, there was a 95% decrease, bringing the total of disruptions that interrupt the entire class' learning down to one case in an entire week. See Graph 2.

Furthermore, behaviors that exhibited visual self redirecting and self regulating behaviors increased dramatically. Initially, students were seen purposefully using a strategy to regulate themselves eight times in one week. Following the initial *GoZen!* modules, there was a 300% increase, bringing the total to thirty-two times. Upon completion of the entire collection of the *GoZen!* resources, students visually self redirected or regulated thirty times for a slight drop from the completion of the basic set of modules, but still up 275% from the initial observation (Graph 3).



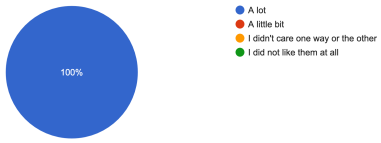
Graph 3: Self Regulating/Redirecting by Weekly Data

In regard to the students' perception of the program, nine out of ten students who participated in the whole study were questioned, one was unable to be. The following were the findings:

- Upon answering the following "How much did you like the videos?" students were giving the choices, "A lot," "A little bit," "I don't care one way or the other," and "I did not like them at all," 100% of students said "A lot," with a few adding the word "love" to how they felt.
- When asked "Do you ever use strategies from the GoZen videos we watched?" 100% of the students said they did.
- After I instructed them to "Tell me what strategies you used," 8/9 students pointed to a breathing technique and 1/9 spoke about "catching" a thought, which is a technique taught in the videos.
- When told to, "Explain how those strategies helped you," 6/9 spoke about it calming them down, 1/9 said that it helped to catch the "bad thoughts," 1/9 said that it helped them to get the "bad feelings out…" and 1/9 could not verbalize how it helped, just that it helped.
- The last instruction I gave them was to, "Tell me anything you want to say about how you feel about GoZen." Seven students spoke positively about it saying that they either loved it, enjoyed the videos, or they liked the way it made them feel. Two students had nothing more they wanted to add about the videos. See Google Form results below:

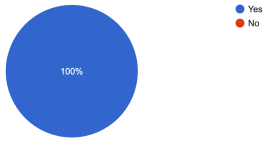
How much did you like the videos?

9 responses



Do you ever use any of the strategies from the GoZen videos we watched?

9 responses



Tell me what strategies you have used.

9 responses

4-7-8 breathing
"4-7-8 breathing"
"Calm down breathe"
"Breathe"
"A lot, lot more. Like the one where they catch the bad thought that was on Earth."
"The Breathing"
"Breathing"
"4-7-8 Breathing"

Explain how those strategies helped you.

9 responses

"It helps me get all of my like tough feelings out of me."
"It makes me calm."
"Calms me"
"calm down"
"Calm down"
"It helps me by learnin' to catch the bad thought."
"Because that makin you calm."
"It helped me"
"Make me calm down"

Tell me anything you want to say about how you feel about GoZen.

9 responses

"I love it." "I feel happy that we have it."
Nothing to say, shook head no.
"I really liked the cartoons."
"Make me feel happy."
"I feel calm."
"No'
"One of those dvds things is fun."
"I like it a lot."
"The cartoons were good."

The aforementioned findings from the interview (as well as anecdotal notes taken stating the attentive nature they had during the lessons and modules) indicate that the students found the videos to be enjoyable, as well as helpful.

They specifically appeared to have enjoyed and benefited from the use of 4-7-8 breathing. Further, they have been seen using that strategy in a variety of situations during, as well as after the *GoZen!* training. While they did not always do it correctly per se, using four-seconds to breathe in, seven-seconds to hold it and eight-seconds to breathe out, they were often spotted breathing in slowly, as well as using their fingers to help them keep track of time and then breathing out. This was very effective in calming students, when they utilized the method.

Another method they were fond of, and asked to have repeated, was body scanning. Students expressed their enjoyment in having to specifically focus on a part of their body. A few of them stated, to the teacher, that this helped them to focus and become calm.

When speaking of how the strategies helped them, many of them spoke to the fact that they were able to calm themselves more easily and help to get the "bad thoughts" out. They also went on to include the fact that they simply enjoyed the program and how it made them feel.

Further, students verbalized their enjoyment of the coloring sheets that contained the characters. I noticed them taking more care and consideration when coloring these versus random coloring pages.

Limitations

There were several unforeseen limitations to this study. First and foremost, the issues around Covid 19 and the decision to give parents options as to whether their child would attend school in person or remotely, as well as the requirement for students to be gone when feeling ill (which was monitored much more than in the past) or for two weeks when deemed a close contact, caused significant student population variances. At the beginning of the study there were 10 students in person. Then, the numbers fluctuated in a completely inconsistent manner. Many times students had no idea why or how long their compatriots were going to be out. This caused another level of stress and then this was amplified upon return of friends, and with the unknown, on students' part from day to day of who was going to be there and for how long. Some students even verbalized that they did not understand why friends would disappear for a couple weeks at a time and that they were worried about them. As well as the other aforementioned stressors to students, this inconsistency of a student being in class, made for difficulty in training an entire class on a program that is practiced and added to daily.

Moreover, the sheer lack of numbers in the students who were having data collected upon them speaks to the statistically insignificant sampling size, leading to variability and validity being questionable and not necessarily reliable.

Further, the change in teacher makeup was difficult on students. It is a laborious task to know the expectations of all the teachers one works with when there is such inconsistency. Students went through a series of differing teacher demographics, at such a young age, new or semi-new to the educational setting.

First, there was mostly the general education teacher with random other adults coming and going at different times throughout the day in an attempt to cover the role of the Special Education Co-Teacher. The general education teacher's expectations were always the same, but people who came in to assist would have differing levels, as well as separate management strategies they would employ to reach these expectations, forcing the students to be uncertain of what was expected of them from one moment to the next. This inconsistency was enough to cause the general education teacher, who was an adult, to feel uneasy and uncertain. So, naturally children of five to six years of age were often completely insecure in what was expected out of them and when things would suddenly change because no one was able to show up.

Then, there was an adjustment period for everyone, once the Special Education Co-Teacher was hired while the class began to get used to the new routines. Once this new teacher became a routine part of the environment, everyone settled in successfully. Then, she was gone for two weeks causing the day to day routines to be uncertain, with the lack of a consistent substitute teacher on her behalf.

Moreover, without a consistent co-teacher from the beginning of the study, that leads to a lesser degree of validity to the scores. Had the co-teacher been in the classroom throughout the entirety of the program this ability to compare scores would have lent to the validity of the study.

On top of their being a lack of consistency in teachers, there was a lack of complete fidelity to the program. The original intent was to practice complete fidelity. However, due to the

fact that other adults/teachers (PE, music, library, computers and the counselor) were a part of their learning environment, students are introduced to calming strategies in the classroom environment on a semi-regular basis.

Furthermore, the general educator's ethical dilemma of knowing that something other than what the *GoZen!* program is teaching would benefit the student came into play in the study. All teachers in the students' educational setting decided to do what was best for the student, in a given circumstance, putting the student's needs above the study at all times. Therefore, other strategies were employed throughout the program under the direction of the general education teacher, behavior specialist, counselor, Special Education Teacher and other adults in the children's educational environment.

Another aspect that was included in lack of complete fidelity, is the fact that the general education teacher often reminded students to use their strategies throughout the program. This was done specifically naming the strategies in all steps of the program excluding the actual data collection time. Further, a video that included deep breathing and body scanning was played and practiced almost every day after lunch recess as a calming tool, due to the fact that student anxiety consistently increased following lunch recess. This practice was not a part of the program.

Moreover, the program lessons were too complicated for Kindergarten students to complete on their own. One school year would not be enough for all students in the Kindergarten Co-Teach classroom to finish the lesson plans exactly as prescribed by the program if done utilizing the often one-on-one approach it prescribes. Therefore, some lessons were more rushed, others were not personalized enough to truly analyze efficacy. To practice complete fidelity to the program almost every lesson would have been done one-on-one. This was not a doable approach

for the school year. Therefore, many items were completed as a whole class. Individualization tends to have a greater efficacy rate with most programs and the program asks of students to really think about their own situation more deeply. Therefore, findings are skewed based on the fact that this was not done.

In addition to the complexity of the individualized lessons, there seemed to be too many complicated strategies for a Kindergarten student to recall easily. For example, students were instructed to use the 5 Cs. This was often an acronym that both students and myself had a difficult time remembering. Not only was the acronym of the 5 Cs difficult to remember (catch, check, collect, challenge, change), but the ideas were abstract and difficult for five and six year olds to grasp. Catch, meant to grab your thoughts (often explained as using a net to get them). Check, meant to look for what the program called thought holes. These included eight different thought holes or errors in thinking; jumping to conclusions, mental filtering, magnifying, minimizing, personalizing, externalizing, overgeneralizing and emotional reasoning. These were simplified into five, slightly easier, though still complex vocabulary terms; leapfrogging, key holing, gigantifying, moodeasoning, and extremifying. Collect was a way to gather evidence (positive versus negative) to support or negate the way you are thinking. Then, they teach you use this evidence to challenge (or debate) your thoughts. Finally, after doing the four previous portions of the 5Cs, you can ideally change your perspective on a given situation.

The issues with the 5Cs include not only the complexity of remembering them, but that the sound /ch/ is not yet mastered by most students. Many were still working on the /ck/ sound from the letter c and have yet to move onto the /ch/ sound. Therefore, remembering that a /ch/ sound would be a part of the 5Cs would prove a difficult task.

This challenging endeavor was only one strategy introduced in the program and its complexity was too much for Kindergarten students to remember. It is possible that if it were the only thing focussed on, and no more were added, the teacher could have adapted and came back to them repeatedly, making it more effective and memorable. However, when adding in the further strategies introduced in the subsequent modules, there appeared to be an inability to dive deeply enough into any one strategy for Kindergarteners to easily remember and use it to its fullest ability.

The students' favorite and most easily remembered strategy became 4-7-8 breathing, in which students breathe in for the count of four, hold it for seven-seconds and slowly release to the count of eight. Students enjoyed this and there were often immediate results, prompting the teacher to remind students to use their 4-7-8 breathing (excluding during data collection) meaning they were getting more reminders than the program called for, again bringing into question the validity of the research.

Another limitation was that it is possible that students were using a self regulating strategy that was not visible to the teacher. For example, if a student is not breathing in a manner that is obvious to the teacher (i.e. counting their breath) it is possible for the strategy to go unnoticed.

Technique, and the aforementioned limitations, brought into question whether or not, even though this was an opportune year to add a series of calming strategies, it may have been an ideal time to effectively discover the efficacy of a specific program.

Finally, for the entire week of the final set of data collection, there was a cold streak resulting in every single recess being held indoors during the Covid 19 restrictions.

Conclusion

There were many unpredicted barriers to collecting valid data during this study, including the lack and subsequent addition of a co-teacher, the fluctuating number of students in the classroom, the stressors of Covid-19, the small number of students who had data taken versus the number of students in the classroom on a given day, the fact that the final data was taken during an unprecedented cold streak with every single recess being held indoors, lack of complete fidelity to the program, the complexity and vast number of acronyms and ideas students needed to remember, as well as the fact that only one person was collecting data on behaviors, which can be very subjective based on the individual collecting data. These all bring into question the validity of the study and suggest that a more comprehensive study is needed in order to determine the efficacy of the program.

Further, if data was to be taken at the beginning of any given year, in accordance to the behavioral expectations and then again nineteen weeks later, it is possible that there would be just as significant a decrease in disruptive behaviors and an increase in self regulatory behaviors from the simple strategies that educators teach students on a typical day-to-day basis, without the utilization of a costly program.

The program helped students to decrease disruptive behaviors and increase self-regulating behaviors. Mindfulness can benefit students tremendously. It is difficult, however, to know how much of this benefit came from the program itself and how much came from the teacher's extensive background in mindfulness and meditation, and subsequent natural and intentional modeling thereof.

With that being said, due to the vast decrease in disruptive behaviors, there appears to be promise in the *GoZen!* program. Due to the fact that valid data was not obtained at a desired

level, it is suggested that further research is needed to effectively determine the efficacy of the *GoZen!* program in the Kindergarten classroom and/or the co-teach classroom.

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Apendix 1

Parent Permission Form

Parental Permission for Children Participation in Research

Title: *GoZen in the Kindergarten Classroom*

Introduction

The purpose of this form is to provide you information that may affect your decision as to whether or not to allow your child participate in a research study for a class I am taking and thesis I am writing. I will answer any and all questions you may have in regard to the study.

Purpose of the Study

With your permission, your child will be asked to participate in a research study about using GoZen as a calming tool in the classroom. The purpose of this study is to see if GoZen is a good program to help children self-regulate emotions and if so how well it works.

Child Participation

If you allow your child to participate in this study, I will compare the behaviors of the class (as a whole) from before we used the program to after. There will be no names, nor indications of which child behaved in a given manner, nor any possible way for anyone to figure it out. Further, it will be coded, as a class analysis, not an individual one. The findings may be published in an educational journal. However, your child's privacy will be protected 100%. With that said, your child's participation in this study is voluntary. You are given the option to opt in (allow participation) or opt out (deny permission). Further, you may choose to withdraw your child's participation at any point.

Risks

There are no foreseeable risks to participating in this study. We will all be doing GoZen as a class, the difference is, if you choose to opt in, I will have the opportunity to better analyze and learn if GoZen truly works or doesn't, as well as how well it works, and if I wish to incorporate it in future years.

Potential Benefits

If this program works, your child, as well as the others using it, may become even better at dealing with stressful situations. Further, students in future classes can benefit if it is found that GoZen is a good tool to help students use calming strategies. Or, if it doesn't show any benefits, I (and other teachers who read this study) can be informed that it may not be the best tool and to possibly look into other options.

Thank you! If you have any concerns or questions you may talk to me during pick up, call me at 406-751-1121 or email me at sjohnstone@evergreensd50.com.

_____ Opt In - My child MAY participate
_____ Opt Out - My child MAY NOT participate

_____
Printed Name of Child

_____ _____
Signature of Parent(s) or Legal Guardian Date

_____ _____

Apendix 2

Self Regulating/Redirecting Behaviors Checklist

Measurement of Disruptive and Self-Corrective Behaviors

Self-Regulating/Redirecting Behaviors

Monday	

Disruptive Behaviors

	1	2	3	4	5	6	7	8	9	10
I										
E										

	11	12	13	14	15	16	17	18	19	20
I										
E										

	21	22	23	24	25	26	27	28	29	30
I										
E										

Key

I = Inappropriate Behavior
- V = Verbal Disruption
- P = Physical Disruption (i.e. movement that disrupts learning)
- H = Harmful behavior, to self or other

E = Extent of Behavior
- S - Only disrupts self learning
- G - Disrupts learning of a small group
- W - Disrupts learning of the whole class

Appendix 3

Measurement of Inappropriate and Disruptive Interactions (MIDI)

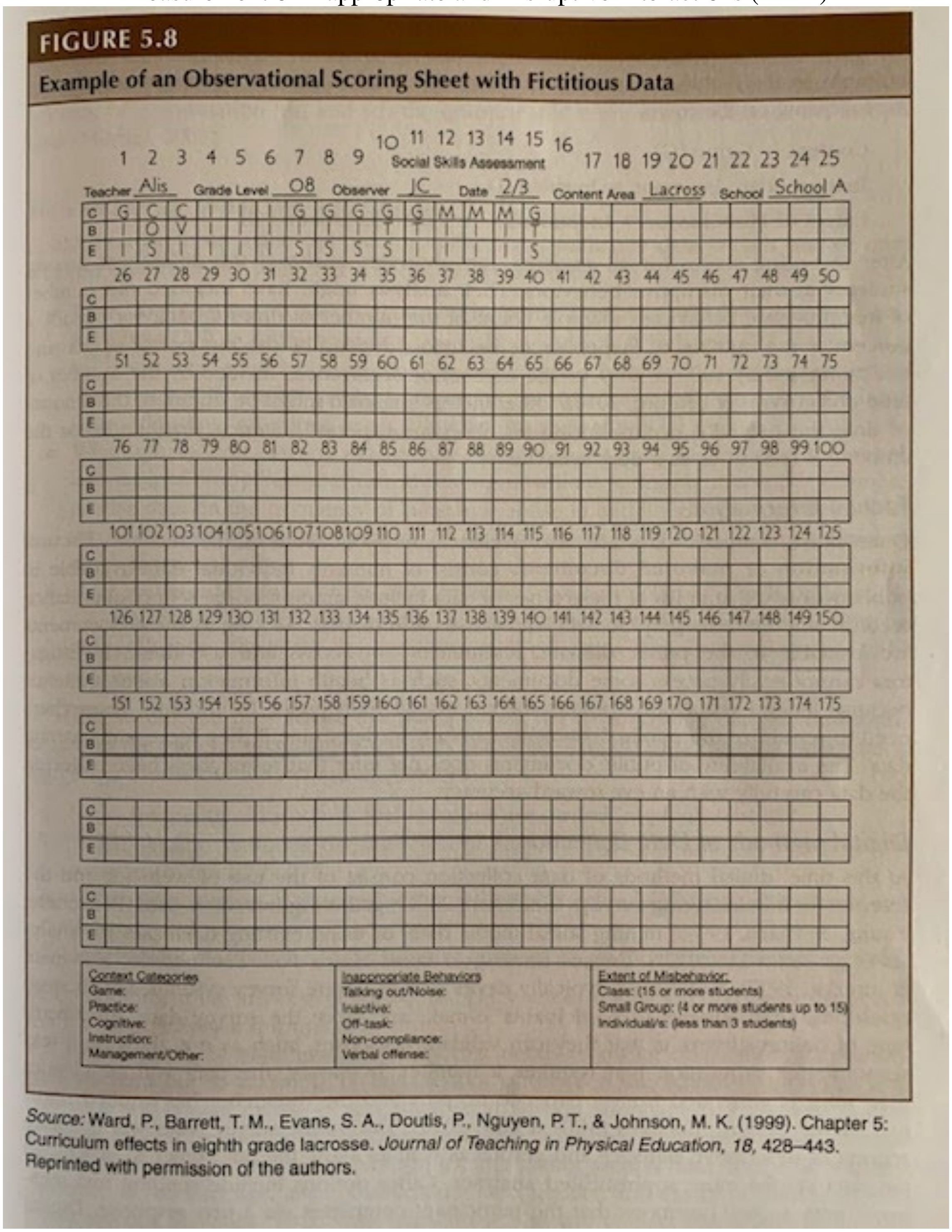

FIGURE 5.8

Example of an Observational Scoring Sheet with Fictitious Data

Social Skills Assessment

Teacher Alis Grade Level 08 Observer JC Date 2/3 Content Area Lacross School School A

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
C	G	C	C	I	I	I	G	G	G	G	G	M	M	M	G										
B	I	O	V	I	I	I	I	I	I	T	T	I	I	I	T										
E	I	S	I	I	I	I	S	S	S	S	I	I	I	I	S										

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
C																									
B																									
E																									

	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
C																									
B																									
E																									

	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
C																									
B																									
E																									

	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
C																									
B																									
E																									

	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
C																									
B																									
E																									

	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
C																									
B																									
E																									

C																									
B																									
E																									

C																									
B																									
E																									

Context Categories	Inappropriate Behaviors	Extent of Misbehavior:
Game:	Talking out/Noise:	Class: (15 or more students)
Practice:	Inactive:	Small Group: (4 or more students up to 15)
Cognitive:	Off-task:	Individual/s: (less than 3 students)
Instruction:	Non-compliance:	
Management/Other:	Verbal offense:	

Source: Ward, P., Barrett, T. M., Evans, S. A., Doutis, P., Nguyen, P. T., & Johnson, M. K. (1999). Chapter 5: Curriculum effects in eighth grade lacrosse. *Journal of Teaching in Physical Education, 18,* 428–443. Reprinted with permission of the authors.