Looking at Gender Differences in Preschoolers' Self-Regulation Through Multiple Lenses

by

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Abstract

This study examined gender differences in preschoolers' self-regulatory levels through multiple measures, including teacher ratings, teacher surveys, individual tasks, and group tasks. Results showed that most teachers responded that girls display higher levels of self-regulation than boys in both their interviews and on their surveys. However, there were no significant gender differences on the individual assessment. There were also very few significant gender differences on the group tasks, though those that were uncovered appear to be explained by group composition. Findings and implications are discussed, especially in terms of context and academic shifts in determining gender differences in self-regulation.

Keywords: self-regulation, gender, group, individual, teacher

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Early childhood, which typically spans from birth through age five, is a vital time for children to develop the cognitive, emotional, and social skills that they will need not only for schooling but also for life outside of the classroom. However, many children do not receive high-quality care due to insufficient funding for some early childhood programs, or to a lack of information on how to better prepare them for success in life. This period of development is so critical that it warranted a proposal by the Bush Administration entitled *Good Start, Grow Smart,* designed to help communities strengthen early learning for young children, so that they have the opportunity to begin school with an equal chance at achievement (Bush, 2002). President Obama also emphasized early childhood education in his State of the Union speech, pointing out that fewer than thirty percent of four-year-olds are enrolled in a high quality preschool program. Therefore, he proposed working with states to make high-quality preschool more available and affordable to every single child in America, which should help with reducing both teen pregnancy and violent crime (Obama, 2013).

One of the cognitive characteristics of early child development is an ever-increasing capacity to regulate behavior, emotion, and cognition (Bridgett, Oddi, Laake, Murdock, & Bachmann, 2013). This general ability can be classified as self-regulation, which has many specific definitions. Kochanska states that it involves controlling and modifying one's behavior according to social standards (Kochanska, Coy, & Murray, 2001). Forster conceptualizes it as bringing one's thoughts, feelings, and behavior in line with his own standards, values, and goals (Forster & Jostmann, 2012). Howse defines it as self-directedness and performance-control before, during, and after a task activity (Howse, Calkins, Anastopoulos, Keane, & Shelton, 2003).

Self-regulation is becoming an increasingly important variable in understanding and predicting academic success. Best and colleagues have found that the pattern of correlation strength between three separate self-regulation tasks and academic achievement was extremely similar for overall math and reading achievement for children from the ages of five through seventeen (Best, Miller, & Naglieri, 2011). This finding supports the notion that self-regulation tasks assess some of the cognitive processes, such as self-monitoring and impulse control, that are vital to aspects of both reading and math. In a separate study with preschoolers from a socioeconomically diverse, rural town in Oregon, higher self-regulation in the fall of prekindergarten was significantly related to stronger math and reading skills in the fall of prekindergarten, regardless of whether children were from low-income families (McClelland & Wanless, 2012). Young children who utilize different aspects of self-regulation tend to perform better socially and academically than those who are overly impulsive (Hoffman, 2009). Tominey found that preschoolers who both had initially low levels of self-regulatory skills and participated in a self-regulation intervention demonstrated significant self-regulatory and letter-word identification gains (Tominey & McClelland, 2011).

Gender

Many researchers have discovered gender differences in self-regulatory abilities for infants and children, with girls displaying higher levels of this construct at an earlier age than boys. Weinberg realized that male six month-old infants had more difficulty than female infants of the same age maintaining both positive and negative affective regulation when mothers did not interact with them (Weinberg, Tronick, Cohn & Olson, 1999). In a study of kindergartners, girls outperformed boys in both an objective measure (Head-Toes-Knees-Shoulders task) and in a teacher report of self-regulatory behavior in the classroom (Matthews, Ponitz, & Morrison,

2009). Duckworth found that eighth grade girls at an urban magnet school were not only more self-disciplined than their male classmates according to delay of gratification measures and self-report, teacher, and parent ratings of self-regulation, but also according to their grade point averages (Duckworth & Seligman, 2006).

Even professionals who are not specifically studying self-regulation have noticed that boys, on average, are more likely to struggle in school than girls. One Newsweek article cites a dismantling of recess and gender differences in brain activity as just a couple of factors that seem to be detrimental to the academic success of boys. Dr. Jay Gieddhas has used brain scans to show that the prefrontal cortex, an area of the brain that helps people organize thoughts, control impulses, and understand consequences of their own behavior, develops at a much slower rate in boys than in girls. These functions play a key role in self-regulation. In addition, the elimination of recess does not allow boys the chance to play outside, an activity that they prefer far more than sitting still, in part because it does not require them to control their impulses (Tyre, 2006).

Despite the above evidence, many studies have not found significant gender differences in self-regulation. Preschool teachers' responses to a questionnaire did not demonstrate (Olson & Kashiwagi, 2000) any substantial gender differences in self-inhibition, which consisted of controlling negative feelings and inhibiting disruptive behavior, among 3 and 4 year olds. Von Suchodoletz discovered that although German and Icelandic preschool teachers rated girls as demonstrating significantly higher self-regulation than boys, this disparity was not evident in a more objective, direct measure of self-regulation, the Head-Shoulders-Knees-Toes task (Von Suchodoletz, Gestdottir, Wanless, McClelland, Birgisdottir, Gunzenhauser, Ragnarsdottir, 2013).

Overview of Present Research

Very few studies, to my knowledge, have evaluated gender differences in self-regulation across all of these settings: teacher interview, teacher surveys, individual assessments, and group assessments. In each of the analyses of this study, self-regulation as a lone variable will be described as controlling one's behavior in order to achieve a goal while utilizing three key components: working memory, attention control, and response inhibition. Working memory enables children to remember and follow directions. Attention control allows children to carry out behaviors, focus on an activity, and complete tasks. Inhibitory control prevents children from displaying automatic yet harmful behaviors in favor of more adaptive yet less intuitive responses (Berhenke, 2013).

Based on the research presented above, the present study had five main goals. The first goal was to examine whether teachers reported any gender differences in self-regulation in their interviews. I hypothesized that teachers would claim that girls are more self-regulated than boys. The second goal was to determine if teachers reported significant gender differences in overall self-regulation, working memory, attention control, and response inhibition in their surveys. Olson reported that both U.S. and Japanese preschool teachers gave girls significantly higher scores on a self-inhibition scale, which measures how well they can control their negative feelings and persist with a difficult task (Olson, Kashiwagi, 2000). I therefore hypothesized that teachers would rate girls significantly higher than boys in all four of these aforementioned self-regulatory variables.

The third goal involved examining whether there were significant gender differences on an individual assessment that measured self-regulation. McCabe, who focused on self-regulation preschool children using three different situational assessments, discovered that there were no significant gender differences in self-regulation (McCabe & Brooks-Gunn, 2007). However,

other studies have found that girls perform significantly higher than boys in self-regulatory tasks. Therefore, it is extremely difficult to predict whether there would be gender differences in individual assessments for this study.

The fourth goal of this study was to determine if there were any significant gender differences in self-regulation on a group task. I hypothesized that girls would self-regulate more easily and often than boys when practicing this construct with their classmates. Assuming that this hypothesis holds true, the final goal of this study was to determine if group composition and each child's neighbor were mediating variables in this gender difference. I hypothesized that both a high percentage of boys in a group and a high percentage of neighbors that are boys would influence that child's self-regulation.

Method

Participants

Participants were 145 children enrolled in a study of preschool self-regulation in the Midwest and were recruited by letters sent home from teachers who regularly communicated with parents. Children came from a state-funded school readiness program and tuition-based preschool classrooms in five schools. As reported by parents, children's ethnic identities were 62% Caucasian, 23.9% Asian American, 8.7% multi-racial, 2.2% Chaldean, and 1.1% Latino. Ninety-three families returned family background questionnaires, with 68 families reporting a mean family income of $153,132 for a family of 3.96 (range: $34,000-$650,000; median: $135,000). Preschoolers had a mean age of 47.7 months (*SD* = 7.54) in the fall and 54.7 months (*SD* = 7.29) in the spring. The sample was 52% female.

Procedure

Children were given an individual assessment (see below) in the Fall and Spring of their preschool year by the researcher and trained graduate and undergraduate research assistants working for credit. Teachers completed teacher ratings for children during the Fall and Spring as well. Finally, children completed classroom challenge tasks assessing self-regulation in groups in the Fall and Spring. Teachers were interviewed about their students' self-regulation in the Spring after the final child assessments.

Measures

Teachers reported on children's behavioral self-regulation in teacher interviews and on their attention control, working memory, and response inhibition in their surveys. Children were individually assessed on a broad measure of behavioral self-regulation. Additionally, children and their teachers engaged in the classroom challenge tasks for self-regulation: the Freeze game (Lan, 2009), the Freeze Prime game and the Jumping game (Lan, 2009).

Teacher interviews. Seventeen teachers were asked if they noticed any differences between boys and girls in self-regulation. Each of their responses to this question can be seen in Table 1 and are coded as either "No Gender Differences," "Backtracking After Initially Claiming Gender Differences," or "Gender Differences. A frequency count of all three of these responses was tallied. In addition, each teacher was asked to name specific students who are high in motivation and low in self-regulation, along with students who are low in motivation and high in self-regulation. Tables 2 and 3 contain each teacher's responses of the gender(s) of the specific student(s) that they deemed as having either low self-regulation or high self-regulation, respectively. A frequency count was tallied in terms of teachers naming only girls, only boys, or both girls and boys for both high and low self-regulation. Undergraduate research assistants transcribed the interviews from .WMA files.

Teacher surveys. Teachers rated children's self-regulation on a measure developed by Lan (2009). This scale asks teachers to rate children on items such as "Follows two-step directions" and "Has a short attention span" on a scale from 1-7, and typically yields three factors: response inhibition, working memory, and attention control. Gender differences in general self-regulation, along with these three specific variables, were measured in both the Fall and Spring.

Individual assessment. Children completed the Head-Toes-Knees-Shoulders task (Ponitz, McClelland, Matthews, & Morrison, 2009), a measure of behavioral self-regulation where children must perform the opposite of the experimenter's commands. Directions include, "When I say, 'Touch your toes,' touch your head!" I compared this variable in boys with this variable in girls in both the Fall and Spring.

Freeze Game. During the Freeze game (Lan, 2009), teachers instructed children to march in a circle to music. When the music stopped, children froze. Children could only unfreeze themselves when the teacher said "unfreeze" or when the music started again. An experimenter controlled the marching music and stopped it at random intervals of less than 15 seconds. The task repeated for three trials and was videotaped for later coding of response inhibition. Points for Freeze Steps were assigned for approximations of the targeted behavior and averaged across the three trials. Points were given based on the speed and accuracy of the child's stopping. Four points were given for immediate stop when the music stops, three for delayed stop with one more step, two points for delayed stop with two more steps, one point for delayed stop with three or more steps, and zero points for forced stop (i.e. the child stops only to avoid running into another child), non-stop or not participating. Points for Freeze Time reflected how long the child stayed frozen. Three points were given to a child that stopped and stayed frozen

and did not move for at least five seconds, two points were given to a child that froze but then struck a pose that they attempted to hold for at least five seconds, one point was given to a child that initially stopped but did not remain frozen for at least five seconds, and no points were given to a child that did not stop when the music stopped.

During the Freeze Prime game, teachers instructed children to march in a circle without music. When the music started, children froze into a certain pose. Children could only unfreeze themselves when the teacher said "unfreeze" or when the music stopped again. An experimenter controlled the marching music and started it at random intervals of less than 15 seconds. The task repeated for three trials and was videotaped for later coding of response inhibition. Freeze Prime Steps and Freeze Prime Time were coded as described above.

Working memory game. During the Jumping game (Lan, 2009), children also marched in a circle to music, but prior to marching, teachers instructed students to "jump three times" (one-step instruction) when they heard the music stop. So, as children marched, they had to monitor the music and remember the instructions, processing two pieces of information in working memory at once. After the one-step instruction trial, the teacher gave the two-step instruction ("jump three times and clap twice") and three-step instruction ("jump three times, clap twice, and go one step backwards") respectively. Points were given for working memory based on the accuracy of the action. Two points were given for the correct response (e.g. jumped three times), one point for attempted but failed response (e.g. clapped three times instead of twice), and zero points for not responding or producing an irrelevant or completely incorrect response. We coded using a modified system, reflecting the nature of group dynamics we saw at play during data collection. Children frequently looked to one another for information when they were unsure of how to proceed. This behavior, while strategic, does not represent true

working memory, and thus cued recall (performing the action after seeing a friend do it) deserved a lower score than uncued recall. Thus, we used the following scores:

6 – Perfect Recall (given to a child that performed the actions correctly)

5 – Miscount (given to a child that performed the actions an incorrect number of times, i.e. clapped once)

4 – Bananas (given to a child that performed the action without an attempt to count, "goes bananas")

3 – Cued Perfect (given to a child that performed the actions correctly after learning (visually, verbally) from a peer; there was a delay in performing the actions)

2 – Cued Miscount (given to a child that performed the actions an incorrect number of times after learning (visually, verbally) from a peer, there was a delay in performing the actions)

1 – Cued Bananas (given to a child that performed the actions without an attempt to count but only after learning the action from a peer; there was a delay in performing the actions)

0 – No Response (given to a child that dids not respond or produced an irrelevant or completely incorrect response)

Attention control coding. During the instruction phase for each task (Freeze, Freeze Prime, and each set of directions for the Jumping Game), points were given based on the child's attentiveness to the instruction (this attention control score was a novel code for this study). Two points were given for full attention (body and face directed at the experimenter, attentive expression, no disruptive actions or verbalizations), one point for partial attention (some time of full attention, some occurrences of distraction or disruptive actions or verbalizations), and zero points for no attention.

Group Composition Variables. Under the assumption that my hypotheses about gender

differences in self-regulation in a group setting held true, I was interested in discovering the reasoning and context behind this gender difference in groups but not in individual tasks. Therefore, I assigned a group number to each child, and within that group, I considered their group composition – operationalized as the percentage of children in each group that is male – and their neighboring status – defined here as the number of boys next to a given child.

Results

Teacher Interviews

Eleven out of seventeen teachers answered that there were gender differences in self-regulation in their interviews (see Table 1). One teacher backtracked on her initial claim that there are boys and girls differ in levels of self-regulation: "Girls are more self-regulated physically, but not always emotionally, so maybe there are no gender differences." As expected and demonstrated, teachers named more boys (27) than girls (5) as demonstrating low self-regulation, and deemed more girls (20) than boys (14) as having high self-regulation (see Tables 2 & 3).

Teacher Surveys

Teachers rated girls significantly higher than boys in self-regulation in both the Fall and the Spring. In the Fall, girls (5.59) were rated nearly a full point higher than boys (4.47) on a seven-point scale $t(126) = -5.36$, $p < .001$. This gap between girls (5.60) and boys (4.85) decreased somewhat, but remained significantly higher in the Spring $t(114.62) = -4.05$, $p < .001$. Teacher-rated working memory on a seven-point scale was significantly higher for girls (5.74) than for boys (5.17) in the Fall $t(134) = -2.72$, $p = .008$. However, teachers rated girls (6.01) only marginally higher than boys (5.74) in this variable in the Spring $t(133) = -1.87$, $p = .064$. Teachers rated girls significantly higher than boys in attention control in both the Fall and

the Spring. In the Fall, girls (5.18) were rated over a full point higher than boys (4.07) on a seven-point scale $t(134) = -4.29$, $p < .001$. Though boys (4.18) began to catch up to girls (4.97) on this variable in the Spring, there was still enough of a gender gap for it to remain significant. Teacher-rated response inhibition on a seven-point scale was significantly higher for girls than for boys in both the Fall and the Spring. Teachers rated girls (5.52) over a full point higher than boys (4.35) on this variable $t(125.19) = -5.06$, $p < .001$, though this gap between girls (5.60) and boys (4.68) shortened in the Spring $t(114.45) = -4.01$, $p < .001$ (see Table 4). Teachers rated girls higher than boys on all sub-components of self-regulation. Non-integer *df* values indicate that for a given comparison, the equality of variances assumption was not met, and Welch's non-parametric *t*-tests were used.

Individual Assessment

There were no significant differences between boys and girls on the Head-Toes-Knees-Shoulders task, an individual measure of self-regulation on a forty-point scale. Boys (12.17) did not perform much worse than girls (13.83) on this measure in the Fall $t(132) = -0.80$, *ns*. This gap between boys (18.41) and girls (20.96) was not much higher in the Spring $t(131) = -1.09$, *ns* (see Table 5).

Group Freeze and Jumping Games

In the Fall, girls (6.99) displayed significantly higher attention control than boys (6.19) on the group Freeze game on a seven-point scale $t(127) = -2.15$, $p = .034$. However, there were no significant gender differences in this variable in the Spring, when girls (6.00) and boys (6.06) performed nearly identically $t(114) = .144$, *ns*. There were no significant differences between girls and boys in both the Fall and the Spring in the number of steps taken to freeze once the music stopped, on a twelve-point scale. Girls (6.97) and boys (6.56) performed very similarly on

this variable in the Fall $t(131) = -1.05$, *ns*. Both girls (8.53) and boys (8.22) improved their performance on this measure in the Spring, though there were still no significant gender differences $t(120) = .69$, *ns*. In the Fall, girls (7.43) froze while the music was stopped for a marginally longer period of time than did boys (6.92), on a nine-point scale $t(131) = -1.80$, $p = .075$. Though both girls (8.32) and boys (8.17) scored higher on this variable in the Spring than they did in the Fall, there were no significant gender differences by this time period $t(120) = -.49$, *ns*. There were no significant differences between girls and boys in the Fall and the Spring in the number of steps taken to freeze once the music started, on a twelve-point scale. Girls (5.32) performed only slightly higher than boys (4.70) on this variable in the Fall $t(130) = -1.57$, *ns*. Boys (7.35) actually surpassed girls (7.29), albeit ever so slightly, on this variable in the Spring, though the gap is so small that it is essentially negligible $t(120) = .09$, *ns*. There were also no significant gender differences in the Fall and the Spring in the length of time that children were frozen while the music played, on a nine-point scale. Girls (6.72) and boys (6.05) did not significantly differ on this variable in the Fall $t(130) = -2.09$, *ns*. This gap was even smaller between girls (7.62) and boys (7.47) in the Spring $t(120) = -.37$, *ns*. In the Fall, girls (8.81) displayed significantly higher working memory than boys (7.09) on an eighteen-point scale $t(131) = -2.09$, $p = .039$. However, this gender gap lessened considerably in the Spring, as the scores of girls (8.48) and boys (8.25) were nearly identical $t(119) = -.25$, *ns*.

Group Composition

Though the majority of the self-regulatory variables for group settings did not show a significant gender difference, girls did demonstrate significantly higher levels of attentional control and working memory than did boys in the Fall, which provided me the opportunity to explore possible reasons for these couple of significant findings. Unfortunately, after running

correlation tests between attentional control, working memory, percentage of a child's group that is male, and number of neighbors that are boys, I found no significant correlations in any of these four aforementioned variables. Follow-up analyses revealed that there was a positive correlation between mean attention level of a group (minus each child's own score) and that same child's attention score by itself, $r = .359$, n = 121, $p < .001$. There was also a positive correlation between mean working memory level and child's working memory score, $r = .272$, n = 122, $p = .002$.

Discussion

The current study sought to determine if there were gender differences in preschoolers' self-regulation levels across multiple settings. The first hypothesis was that teachers would claim gender differences in self-regulation, with girls being viewed as self-regulating more often and easily than boys. This hypothesis was supported, as the majority of the teachers claimed that girls are more self-regulated than boys. The second hypothesis was that teachers would report significant gender differences in working memory, attention control, and response inhibition on student rating scales. This hypothesis was supported for all three variables at both time points (although Spring working memory was only marginally significant). The third hypothesis, stating that there would be no significant gender differences in self-regulation on an individual assessment, held true for this study. The fourth hypothesis was that girls would self-regulate more easily and often than boys in groups for all six measures of self-regulation in the Fall and Spring. However, this hypothesis was only true for Attention and Working Memory in the Fall. I also hypothesized that a high percentage of boys in a group and a high percentage of neighbors that are boys would dramatically lower a child's self-regulation scores. While this hypothesis was not supported by the data, follow-up analyses suggested a relation between a group's mean

score and a child's score on self-regulation assessments, suggesting that the environment plays a role in self-regulation and further exploration is necessary to determine the nature of this influence.

The answer to whether or not there are gender differences in preschoolers' self-regulation depends on the lens through which one looks. One of the most common beliefs in psychological studies is that teachers usually rate girls as displaying more self-regulation than boys, though we often don't observe these differences in both this experiment and in general laboratory settings. However, there are multiple reasons for this discrepancy between the perceptions of teachers and those of researchers.

Some researchers and psychologists have discovered that self-regulation may be a predictor of achievement test scores in areas such as math and reading. Morrison and his colleagues, for example, found that both the Head-Toes-Knees-Shoulders task and teacher ratings consistently predicted math and sound awareness for both boys and girls in preschool (Matthew, Ponitz and Morrison, 2009). Numerous media articles attempt to convince their readers that boys' academic performance and accomplishments are decreasing with time, with headlines such as *The Boy Crisis: At every level of education, they're falling behind* (Newsweek, 2006). Thus, it may be tempting to conclude that if boys are struggling academically, then they are also faltering with self-regulation. However, Mead actually believes that academic achievement in boys is at a record high. According to the National Assessment of Educational Progress, both the reading and the math skills of fourth and eighth grade boys have improved from 1992 to 2005 (Mead, 2006). It follows that self-regulation skills may have improved as well. This evidence suggests that the gender gap in self-regulation is narrower than it once was, as boys have been performing at a higher level in the classroom than they were. Therefore, one

interpretation of this discrepancy between teachers' and researchers' assessments of self-regulation involves realizing that boys are actually catching up with girls on both this variable and on academic performance, both of which are reflected in laboratory assessments.

It is also important to note that the mean family income of the preschoolers in this study was $153,132, a value that places the majority of the subjects in upper-middle class families. This demographic variable impacts a child's opportunity to practice self-regulating: parents who have more financial security tend to have more resources for their children to receive individualized assistance or instruction on behavioral self-regulation. Tominey found that in her overall sample, children from low-income families began and ended their preschool year with lower behavioral self-regulation and gained fewer points on a measure of behavioral self-regulation than their peers (Tominey & McClelland, 2011). However, since the majority of the students in this study are from a higher socioeconomic status, it seems possible that both boys and girls have had equal opportunities to practice self-regulating. Thus, it seems reasonable for there to be fewer significant gender differences in self-regulation in this study, so looking at this study's original hypotheses from a financial perspective may provide an alternate explanation for its results.

The present study's findings have important implications for the way in which teachers interact with their preschool-aged students. Cornwell and colleagues discovered that grades awarded by teachers are not always aligned with test scores, especially in boys. According to them, teachers grade boys who perform equally as well as girls on reading, math and science tests less favorably than girls (Cornwell, Mustard & Parys, 2012). With teachers factoring behavior and personality into a child's report card score, boys tend to not receive grades that are indicative of their performance on exams or of their knowledge of the class material. This

discrepancy may result from boys developing the skills vital for self-regulation at a later age than girls, a fact that teachers often overlook. Therefore, another way of interpreting the results of the current study could be that teachers' perceptions of their students' self-regulatory abilities may be reflected in their everyday interactions and grades, but not necessarily in their academic potential or test scores.

Limitations and Future Research

Although the current study depicts multiple measures of self-regulation in a relatively large sample size, there are a number of limitations. The primarily limitation is the fairly homogeneous subject pool. Approximately 85% of the preschoolers were identified as either Caucasian or Asian American, which are two of the ethnic identities that perform the highest in self-regulation activities. This statistic may be more of a representation of the population of Ann Arbor, so it might be a better idea to expand this study to Ypsilanti, Dearborn, or Detroit area schools. Having more Latino or African-American students may provide future researchers with an even better understanding of the differing performance levels of self-regulation.

Another limitation lies in the fact that, though longitudinal to a degree, this study only measures self-regulation for one academic year in preschool. Many students take significantly longer to fully achieve their potential in that area, so their future abilities – relative to other children their age - may not be reflected in that nine-month period. One suggestion for improving this study could involve measuring these children from preschool all the way through high school. In doing so, one may get a more complete, and therefore accurate, representation of children's improvement in self-regulating.

Conclusion

This study has demonstrated that there is a discrepancy between the perceptions of

teachers and those of researchers in determining gender differences in self-regulation. Though teachers rated girls as displaying high self-regulatory abilities than boys in both their interviews and surveys, there were few gender differences in objective - both individual and group – tasks. Discovering possible reasons for this incongruity is an innovative and important area for future research. Given the impact that self-regulation appears to have on academic achievement and classroom behavior, this research has significant implications in the fields of psychology and education. Most importantly, one should always keep in mind that self-regulation can be examined through multiple lenses, none of which are necessarily more or less accurate than each other.

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Table 1

Yes Or No Responses By Teacher For Gender Differences In Self-Regulation

Teacher	No Gender Differences	Gender Differences
Becca		Yes
Brad	Yes	
Brett		Yes
Brittany		Yes
Carol		Yes
Erin		Yes
Harmony	Yes	
Jessica	Yes	
Judy	Yes	
Karen		Yes
Kristen		Yes
Laurie	Yes	
Leanna	Yes	
Linda		Yes
Marie		Yes
Sara		Yes
Whitney		Yes

Table 2

Gender of Students that Teachers Believed Were Displaying Low Self-Regulation

Teacher	Boys	Girls	No Answer
Becca	1	1	
Brad	1		
Brett	1		
Brittany	1		
Carol		1	
Ede	1		
Erin	1		
Harmony	2	1	
Jessica	1	1	
Judy	2		
Karen	2		
Kristen	2		
Laurie	1		
Leanna	3	1	
Linda	1		
Marie	1		
Sara	2		
Whitney	4		

Note. Frequency Count: Boys (27), Girls (5), No Answer (0)

Table 3

Gender of Students that Teachers Believed Were Displaying High Self-Regulation

Teacher	Boys	Girls	No Answer
Becca	1	1	
Brad			1
Brett	1		
Brittany	1		
Carol	1		
Ede	1	1	
Erin	1		
Harmony	3	1	
Jessica	1		
Judy	1	2	
Karen	1	2	
Kristen	1	1	
Laurie		2	
Leanna	1	2	
Linda		1	
Marie		2	
Sara		2	
Whitney		3	

Note. Frequency Count: Boys (14), Girls (20), No Answer (1)

Table 4

Descriptive Statistics from Teacher Surveys

Variable	Gender	Mean	Standard Deviation
Fall Self-Regulation	Male	4.47	1.28
	Female	5.59	1.07
Sp Self-Regulation	Male	4.85	1.16
	Female	5.60	0.90
Fall Working Memory	Male	5.17	1.26
	Female	5.74	1.19
Sp Working Memory	Male	5.74	0.69
	Female	6.01	0.96
Fall Attention	Male	4.07	1.56
	Female	5.18	1.45
Spring Attention	Male	4.18	1.54
	Female	5.97	1.23
Fall R Inhibition	Male	4.35	1.43
	Female	5.52	1.23
Sp R Inhibition	Male	4.68	1.50
	Female	5.60	1.09

Note. Sp = Spring, R Inhibition = Response Inhibition

Table 5

Descriptive Statistics from Individual Assessment

Variable	Gender	Mean	Standard Deviation
Fall HTKS	Male	12.17	11.59
	Female	13.83	12.39
Spring HTKS	Male	18.41	13.39
	Female	20.96	13.45

Note. HTKS = Head-Toes-Knees-Shoulders