

Encouraging Mastery in the Classroom:
The Effect of Goal Orientation on Academic Performance

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ABTRACT

This study was designed to address two basic questions: (1) to determine whether a relationship exists between students' goal orientation (performance or mastery) and their performance on written English Language Arts (ELA) responses to reading passages; (2) to determine whether students' mindsets could be influenced through direct teaching about the mind's ability to grow and through offering feedback highlighting specific improvements made and suggesting targets for improvement. The mindset of twenty-three third graders from a Maryland public school was assessed using a self-report questionnaire. Students then were randomly assigned to matched control and treatment groups containing students of both mastery and performance goal orientation. Students' initial ELA scores were correlated with self-ratings of goal orientation to determine whether goal orientation significantly related to success on the ELA tasks.

In an effort to foster mastery orientation, over the course of four weeks, students in the treatment group were shown a series of slideshows about the brain's ability to grow. After completing written assignments, students in the treatment group were provided written feedback, reflected on their work and set learning goals using a standardized form and process. Students in the control group received feedback in the usual way and were not shown the slideshows.

No significant correlation was found between students' initial goal orientation and performance on written responses. The null hypotheses that changes in mindset ratings of the initially performance-oriented students in the treatment and control groups would not differ and that the gains in ELA scores of the initially performance-oriented students in the treatment and control group would not differ also were retained. Further research regarding the development

of mastery-orientation and the relationship between mindset and achievement appears to be warranted.

CHAPTER I

INTRODUCTION

Overview

Students' beliefs and attitudes toward learning greatly impact their educational experiences. Students who are more mastery motivated see learning as incremental. They believe abilities can be improved with practice and that they have control over their learning (Ranellucci, Muis, Duffy, Wang, Sampasivam, & Franco, 2013). Dweck (2010) calls this a growth mindset. These students exhibit academic behaviors that positively impact their learning successes. These behaviors include persevering through difficult tasks and using feedback to improve their performance (Keys, Conley, Duncan, & Domina, 2012). Conversely, students who are more performance motivated have a fixed mindset (Dweck, 2010). They tend to believe that intelligence is static and that their efforts are less likely to impact their success (Ranellucci, et al. 2013). This research seeks to explore the impact of the classroom environment on students' goal orientation and academic success.

This researcher became interested in the relationship of classroom environment on students' goal orientation and academic success in her role as a third grade teacher. She observed that some students rushed through work while others took great care to complete assignments accurately, and she wished to learn more about why the latter students instinctively seemed to demonstrate positive academic habits.

Statement of Problem

The purpose of this study was to determine if there is a relationship between students' mindsets and their performance on written responses based upon reading passages. Additionally, the study was designed to determine whether students' mindsets could be influenced to become

more mastery oriented by directly teaching students about the growth qualities of the mind and by using reflection as a tool through use of a feedback form.

Hypothesis

The following null hypotheses were tested to assess the effectiveness of the intervention.

Null Hypothesis 1

There will be no statistically significant correlation between the pre-intervention ELA rubric scores of participants and their pre-intervention ratings of their goal orientation (mastery or performance).

ho₁: $r(\text{pre-intervention ELA Scores, pre-intervention goal orientation rating}) = 0$

Null Hypothesis 2

There will be no difference in the changes in ratings of mindset of the initially performance oriented students in the treatment group compared to the changes in ratings of mindset of the initially performance oriented students in the control group.

ho₂: mean changes in mindset ratings of Performance oriented students with intervention = mean changes in mindset ratings of Performance oriented students without intervention

Null Hypothesis 3

There will be no difference between the gains in ELA rubric scores of the initially performance oriented students in the treatment group or control group.

ho₃: mean gains in ELA scores of Performance oriented students with intervention = mean gains in ELA scores of Performance oriented students without intervention

Operational Definitions

ELA scores-Rubric scores received on written responses to prompts related to a specific reading lesson

Growth mindset – The belief that one can develop intelligence by working at it

Fixed mindset – The belief that intelligence is static – one either has the ability or does not

Mastery Motivation- Motivation goals that are set on becoming the best one can be at a single task

Performance Motivation- Motivation goals that are focused on a specific outcome

Reflection- A student's self-examination of his or her own efforts and attitudes toward a completed assignment

CHAPTER II

REVIEW OF THE LITERATURE

This literature review explores findings from research that relates to student achievement goal orientations, their characteristics, and their effects on the academic achievement of students. It will examine the relationship between classroom environments and the goal orientations of students and explain some of the characteristics of classrooms associated with establishing mastery goal orientations.

Achievement Goal Orientation Theory

The achievement goal orientation theory attempts to explain the underlying goals that motivate individuals to perform certain tasks. The goal orientation of an individual shapes how that individual views, plans for, and attacks these tasks (Cerasoli et al., 2014). These goal types are identified and separated into various classifications, most notably expressed as mastery goals and performance goals. Scientists, such as Lüftenegger, van de Schoot, Schober, Finsterwald and Spiel, (2014) identify three or more classifications when they divide the two main types of goal orientation into subtypes such as avoidance and approach. Although this literature review focuses on the two major divisions, it is necessary to address the subdivisions due to the varying classifications that have been postulated.

Mastery Goals

Mastery goal orientation has been identified consistently as the most beneficial goal orientation for an individual to adopt in an educational setting. Students who adopt mastery goals are more concerned with their learning and perfecting the task or skill than they are with doing better than others. These students strive to learn and master a skill or concept (Cerasoli et al., 2014). They are “motivated to develop competence, master skills, and [they] recognize the

intrinsic value of learning” (Ranellucci et al., 2013, p. 434). Students with this orientation see learning as incremental and as something that can be changed (Dweck, 2010). They have a growth mindset, meaning that they believe learning is a process, and they believe that the knowledge base of an individual is something that develops and can change.

Performance Goals

Performance goals are associated with social comparison. Students seek to perform tasks to do better than others or to look better than others. Often this category is divided into two subdivisions: approach and avoidance. Performance-approach goals are those held by students who seek to do a task and gain positive comparison over peers. Performance-avoidance goals are held by students who seek to do well to avoid negative comparison to peers. Both groups of students believe they need to do better than others to be considered intelligent. This mindset is not beneficial to the learning experience. Students with performance goal orientations tend to avoid challenging tasks and have lower self-esteem. They view learning as fixed, assuming that one either has the innate intelligence necessary for learning and knowing, or one does not. According to Dweck (2010), these students have a “fixed mindset “and “feel dumb” if they must labor to achieve goals.

Motivation and General Achievement

Research examined for this literature review suggests that the performance goal mindset is not advantageous to the learner and that the mastery goal mindset is advantageous. The mastery goal orientation actively engages students cognitively in the learning process. It “promote[s] a long-term and high-quality involvement in learning” (Lüftenegger et al., 2014). According to Lüftenegger et al., these students seek out and welcome new learning and adapt new information into their schema readily. Mastery oriented learners learn for the sake of

learning and are less influenced by the context and variable features of the social environment than students with performance goal mindsets.

One example of this finding resulted from a study that tested students' conceptual change in relationship to their goal orientation. Conceptual change occurs when a student's prior knowledge of a subject is adapted to use new information. This change includes his or her misconceptions being dropped or altered to include information that forms a more accurate representation of the subject matter (Ranellucci et al., 2013). This observation relates to current experiences.

According to Ranellucci et al. (2013), students with mastery learning goals were more likely to show conceptual change and let go of previous misconceptions than students who did not have such goals. Conversely, students with performance goals were less likely to demonstrate conceptual change than their peers who did not have similar goals. A possible explanation for this finding is that having corrections to their misconception is seen by students as a threat to their intelligence and that threat causes them to commit more strongly to their belief.

Mastery goals consistently are found to be predictive of or even a cause of academic success. In a study examining goal orientations and mathematics performance, mastery goals predicted mathematical achievement consistently, even when accounting for demographics and prior achievement (Keys et al., 2012). In a related study, mastery goals were significant predictors of increased reading comprehension (Bernacki, Byrnes, & Cromley, 2012).

Motivation and Self-Efficacy

Students with low self-efficacy appear to believe that learning is innate and fixed (Komarraju & Nadler, 2013). These are the same beliefs held by students with a performance

goal orientation. Students with high self-efficacy tend to be more mastery goal oriented in their academic beliefs. Students' self-efficacy is positively associated with mastery goals (Lerdpornkulrat, Koul, & Sujivorakul, 2012). Helping students increase their mastery goal orientation and their self-efficacy increases the value they place on hard work and effort. This increased effort leads to better academic achievement overall. A higher level of self-efficacy also encourages the selection and use of better strategies when engaging in the learning process that leads to better achievement in all academic areas.

Motivation and Reading Achievement

Motivation has been identified as key to reading success. Students who are intrinsically motivated to read do so. They generally have a positive attitude toward the task and the practice they receive from their own choice to read increases their comprehension, fluency and vocabulary skills. Since practice is an essential factor in developing these skills, it is of much concern that the number of students reading for pleasure is declining in recent decades (Ho & Guthrie, 2013).

Research such as that reported by Bernacki et al., (2012) suggests that students with mastery learning goals are more intrinsically motivated to read. These students' academic behaviors generally make them more likely to become good readers who comprehend what they read. Mastery goal orientation is more helpful in activating students' learning strategies. When reading, mastery learners are more apt to take notes, seek information, and monitor progress toward learning goals than non-mastery learners. Self-monitoring of one's own reading and of one's own progress toward learning goals correlates positively with higher comprehension.

Changes in Orientation

There have been several studies that indicate that a student's goal orientation can be

influenced, and suggest that once shaped, students maintain that orientation, at least in the short term. One study examining the effect of feedback on motivation involved praising students for completion of puzzles. For successful completion of the puzzles, students received feedback in the form of praise that was either performance based, “better than most,” or mastery based, “getting much better” (Corpus, Ogle, & Love-Geiger, 2006). The students who were praised with the mastery praise at the onset showed more intrinsic motivation later when given ambiguous feedback than did students who were initially given performance praise. Those students receiving performance feedback were less likely to seek self-evaluative information than mastery students when that information was provided at one of the workstations from which they could choose to work. This suggested that the type of praise had an effect on the students’ motivation goals and learning behavior. It appeared to create a situation in which they either wanted to improve and continue seeking challenging tasks or just to be satisfied with their performance.

Research such as that reported by O’Keefe, Ben-Eliyahu, & Linnenbrink-Garcia (2013) suggests that changes in goal orientation last for some. Students with a mastery orientation who were part of a summer school that implemented a mastery structure strengthened their mastery goals mindset and maintained their outlook even when they returned to the regular classroom settings. Students with performance orientation began to adopt mastery goals during the program; however, they did not demonstrate maintenance of those goals after six months when they were returned to their regular classroom settings. This finding appears to indicate a need to continue to expose students to the mastery goal structure within the classroom in order to maintain the mastery goal behaviors.

Classrooms Motivation Structures

Generally, a classroom that fosters mastery goals is one in which the teacher herself displays a growth mindset. Mastery goals are endorsed and performance goals are de-emphasized (O'Keefe et al., 2013). Emphasis is not on the outcome, but on the process and the progress. Students are recognized for improved performance and feedback is geared toward improvement. Reward systems are less extrinsic and more intrinsic. In the realm of academic feedback, Dweck (2010) points out that some educators use the word “yet” and teach their students to use it. An example of this practice would be when teachers help students learn to complete phrases like “I can’t do this” with the word yet. One school implementing a mastery goal educational setting grades academic skills that are not mastered by students as “not yet” as opposed to failing. Students learn that challenge and effort are more important than getting a particular result. Their progress is what is important, not necessarily the result. Another suggestion offered by Dweck (2010) is to have students set improvement goals for themselves as part of this learning process. They work toward the mastery goal incrementally.

A systematic classroom program for influencing students to adopt a mastery goal mindset is TARGET. TARGET is concerned with task, authority, recognition, grouping, evaluation, and time (Lüftenegger et al, 2014). In the TARGET classroom, the task is focused on learning at the appropriate level of challenge. Students have some choice in activities and can contribute to establishing classroom rules and procedures, thus giving them some share in authority. Students are recognized for growth and effort. Grouping in such a setting enables students to work in heterogeneous groups and provides them with other cooperative learning opportunities. Mistakes are allowed in this environment, and the evaluation focuses on improvement and progress. Finally, time is important. Students are allowed a reasonable amount of time to complete the

tasks. In some instances, task, time and authority are all one domain, as students have input in how much time is needed and in the task to be completed. The longitudinal study conducted by Lüftenegger suggested that TARGET had a positive effect on increasing mastery goals.

Summary

The research reported in this literature review indicates that students' motivational goal orientation is important to their successes as students as well as in the workplace. Students who adopt mastery goals with the growth mindset are more likely to develop a love for learning and that intrinsic motivation to learn is important to students' academic growth – including their successful acquisition of reading skills. Students who have a mastery goal mindset generally have the belief system and learning habits that will enable them to be more self-sufficient in learning.

Teachers can influence students' motivational goal orientation during the time the students are in their classroom. Teachers' own beliefs, the feedback they choose to use, the time they give to students to complete tasks, the choices of tasks they give students, and the credence they give to students' thoughts about learning experiences all play a role in shaping a students' mindset toward learning. Teachers can create environments that support students' development into learners with qualities and motivational orientations that are important for academic success.

CHAPTER III

METHODS

Design

This study followed a correlational and quasi-experimental pre-test post-test design and intended to test the effectiveness of an intervention for fostering mastery goal orientation through direct teaching about the mind's ability to grow and provision of mastery-oriented feedback. Students' goal orientation was assessed initially through a pre-test and students of both mastery and performance orientations were assigned to matched control and treatment groups. Students completed an initial reader response entry and it was scored using the Baltimore County Public Schools (BCPS) English Language Arts (ELA) Scoring Rubric for third grade.

These initial ELA scores were correlated with ratings reflecting students' goal orientation to determine if they were significantly related (Null Hypothesis 1). After the intervention was provided to the treatment group, all students were re-administered the goal orientation assessment and comparisons were made to determine whether those who initially were identified as performance oriented in the treatment group exhibited significant changes in orientation (from performance to mastery) compared to their counterparts in the control group. Thus, any changes may have been attributable to the intervention (Null Hypothesis 2).

Participants also completed a post-intervention reading response that was scored with the BCPS ELA rubric. These results were used to determine whether there was a significant difference in gains on the writing responses between students who were initially identified as performance oriented in the control versus the experimental group (Null Hypothesis 3).

Participants

The participants of this study were a convenience sample of twenty-three third grade students in a general education class at a Baltimore County, Maryland public school. The sample consisted of 12 males and 11 females. Students participating in the study ranged from eight to nine years old. The class had students identified as Caucasian, African-American, Asian, Hispanic, African, and Pacific Islander. Two students received English for Speakers of other Languages (ESOL) services and one received Occupational Therapy (OT) services. One student had an Individual Education Plan (IEP) for special education services under the category of other health impaired. Another had a 504 plan for behavioral issues. Both of these students received accommodations in accordance with their IEP and 504 plan for all assessments used in this study.

Instruments

Four different instruments or tools were used in the study. These instruments included the Goal Style Measure, Orientation Instruction Flipcharts, Reader's Response Prompts, and Reflection Rating Forms. The instruments are described below.

Goal Style Measure

Students' motivation orientation was assessed using a teacher developed Likert style questionnaire, called the "Goal Style Measure," a copy of which is included in Appendix A. This assessment was developed based on the review of the literature and Dweck's (2006) on-line assessment, "Test Your Mindset", which is a self-assessment tool available to the public. Questions were adapted to be applicable and understandable to third graders and to be related specifically to the subject of reading. The Goal Style Measure consisted of 20 statements that reflected respondents' beliefs and feelings about learning and performance. Students responded

to each item by indicating the degree to which they agreed with the statement using a five point scale ranging from Strongly Disagree to Strongly Agree. Each choice was assigned a point value from one to five according to how much it reflected a performance or mastery goal orientation/mindset. Higher points were more reflective of a mastery mindset, while lower points were indicative of a performance mindset. An example performance item was “Getting a better grade than the other students on Reading and Writing assignments shows I am smart.” Strongly Disagree was scored as five points, and Strongly Agree was scored as one point for items matching a performance goal orientation. An example mastery item was “I like when the Reading or Writing assignment is challenging and takes a lot of work.” Strongly Disagree was scored as one point (performance oriented) and Strongly Agree (mastery oriented) was scored as five points for items matching a mastery goal orientation. Possible scores ranged from 20 to 100. Students earning total scores of 20 to 60 were considered to be performance goal oriented. Students earning total scores of 61 to 100 were considered to be mastery goal oriented.

Orientation Instruction Flipcharts

The actual intervention that was provided to all students in the treatment group (half of whom had performance orientations and half of whom had mastery orientations) included being shown a series of flipcharts using the software programs PowerPoint and ActivInspire.

ActivInspire is a software created by Promethean that is much like Microsoft’s PowerPoint.

Students can “flip” through the pages to view information presented. The presentations were created by teachers at Seven Oaks Elementary School in Baltimore County as part of a school wide initiative to train students to be more growth oriented. These flipcharts specifically teach that minds are like muscles that grow stronger with exercise and proper care (sleep and diet).

Concrete examples such as how a sponge increases in size when it soaks up water were included

to illustrate brain change and growth. The slideshows teach the concept of learning as a process.

Reader's Response Prompts

The students' regular curriculum reading assignments were used to measure academic achievement. Following eight of their daily reading lessons, all students in both the control and treatment groups were required to respond in writing to a prompt. These assignments, called Reader's Response Prompts, required students to demonstrate reading comprehension and the ability to persevere and express meaning with writing. An example prompt follows.

Describe how the author supports an important point in "Smart Shapes." Be sure to explain how supporting sentences and paragraphs are connected by sequence, cause and effect, or comparison. Use this sentence to begin your response: The author uses comparison to connect sentences and paragraphs to support her point that fish and cars share a problem.

Each student's response to these prompts was scored using a three part, nine point BCPS ELA Scoring Rubric for third grade. Students could receive up to three points for demonstrating mastery level of understanding of the reading material and application of the reading skill taught in the daily lesson. They could receive up to three more points for written expression by responding appropriately to the prompt, using appropriate examples and details from the text to support their ideas, organizing their response using an opening sentence, details and a closing sentence, and using transition words for flow. The final three points were earned for proper use of grammar, spelling and punctuation.

Reflection Rating Forms

As part of the treatment, students in the treatment group prepared ratings of their efforts by completing two-sided reflection forms. Students used side one as a reflection tool directly

following completion of every third written prompt. On this side of the form, they circled their mastery focus (no more than two choices). The choices provided were planned my response, proofread my work, used text support, used a starter sentence and conclusion sentence, and used the teacher's suggestion to. If they chose "used the teacher's suggestion to," they were required to list the teacher suggestion that they had utilized.

The second side of the form was completed after grading. Teacher feedback was written on this side of the form and was specific to how the student could improve his or her work. The feedback included one specific affirmation that noted student improvement and one specific area in which the student could improve. This feedback could be used by the students for setting future goals. After the teacher completed the teacher feedback portion of the form, the forms were returned to students for them to complete the goal setting section, on which they were to choose one specific target upon which they would try to improve in their next writing response. A copy of the Reflection Rating Form is located in Appendix B.

Procedure

All twenty-three students initially were given the Goal Style Measure. Items were read aloud and students were given as much time as they needed to complete the questionnaire. The teacher/researcher then collected and scored the questionnaires. Once scored, students were divided into performance and mastery orientation groups, based on their scores. Given the distribution of scores and the potential benefit of the intervention, the cut score for inclusion in the performance-oriented group was raised to 67.

Next, half each of the performance and mastery oriented students were randomly assigned to the treatment and control conditions to create four distinct sub-groups. The sub-groups were mastery and performance control and mastery and performance treatment.

All twenty-three students also were given an initial reader's response as a pre-assessment. Scores on the Goal Style Measure were correlated with the ELA scores to determine if a statistically significant relationship existed between initial orientation ratings and students' initial reading performance (Hypothesis 1). These initial ELA scores also were used to calculate gain scores for all of the participants who were initially identified as performance by subtracting them from the post intervention ELA scores to determine the effects of the intervention on writing performance.

During the subsequent four weeks, students in the treatment group were shown a total of five slideshows that presented information about the ability of the mind to grow. The slideshows were displayed on a small laptop computer during small group instruction in a more secluded section of the room.

The treatment group students also completed side one of a Reflection Rating Form for every third assignment. After the assignments were graded, the teacher provided feedback on side two of the form. The feedback praised students' improvement and highlighted one specific example of how they could continue to improve their response. For example, they were encouraged to "use an opening sentence for organization" or "explain how your text example supports your answer". When applicable, the teacher used previous student goals and past teacher feedback to inform her praise. The form then required students to reflect on their own work and set goals for the next assignment.

Students in the control group experienced familiar feedback procedure that explained the scores they attained. They were not included in the small group instruction that included the slideshows nor did they complete the Reflection Rating Forms. They remained at their desks and completed independent seatwork while the treatment group reviewed the slideshows as is the

usual classroom routine for small-group instruction. By its nature, the ELA routine includes days when small group instruction does not include every student so this was not unusual.

After four weeks, the orientation assessment (the Goal Style Measure) was re-administered to all students in both groups. Scores from this administration for those initially categorized as performance oriented were compared to the pre-intervention scores of those students to determine if there was a statically significant change in their orientation scores that might be attributable to the interventions (Hypothesis 2).

Finally, a reader response was given to all students as a post-test and scored using the BCPS scoring rubric. Changes in the ELA scores were compared for the students who were initially categorized as performance oriented in both the treatment and control groups to determine if significant differences existed in the changes or gains in their reading and writing scores based on the intervention (Hypothesis 3).

CHAPTER IV

RESULTS

This study was designed to investigate the connection between students' motivation goal orientation and their academic performance in reading. Additionally, it sought to determine whether students' mindsets could be influenced through direct instruction regarding the mind's growth capabilities and through meaningful feedback and reflection. Results from the study follow.

Relationship between Initial Orientation and ELA Scores

Null Hypothesis 1 postulated that the correlation between the pre-intervention ELA rubric scores and pre-intervention ratings of goal orientation (mastery or performance) of participants would not be statistically significant. This hypothesis was tested by correlating the total orientation scores with the initial ELA scores. Descriptive statistics for these variables (for all 23 participants) and correlations between the initial orientation rating and the three ELA scores (understanding, written expression and grammar) follow in Tables 1 and 2, respectively.

Table 1

Descriptive Statistics for Orientation Scores and Pre-Intervention ELA Scores

Scores (n-23)	Mean	Std. Deviation
Initial Orientation Score	69.87	6.497
Pre ELA 1 Understanding	.61	.783
Pre ELA 2 Written Expression	1.30	1.020
Pre ELA 3 Grammar	1.65	.885

Table 2

Pearson Product Moment Correlations (r) between Pre-Intervention Orientation and ELA Scores

		Initial Orientation	Pre ELA 1 Understanding	Pre ELA 2 Written Expression	Pre ELA 3 Grammar
Initial Orientation	R	1			
	P				
Pre ELA 1 Understanding	R	.025	1		
	P	.909			
Pre ELA 2 Written Expression	R	.047	.213	1	
	P	.830	.329		
Pre ELA 3 Grammar	R	.189	.123	.778*	1
	P	.387	.577	.000	
<i>*Correlation is significant at the 0.01 level (2-tailed)</i>					

As indicated in Table 2, only the correlation between the ELA Written Expression section and the ELA Grammar section was statistically significantly greater than zero. The total score on the Orientation scale did not correlate significantly with any of the three ELA section scores. Therefore, null hypothesis 1 was retained.

Impact of Treatment on Mindset Ratings of Performance Oriented Participants

Null Hypothesis 2 stated there would not be a significant difference in the mean changes in ratings of mindset of participants who were initially classified as performance-oriented and placed in the treatment group compared to those of the initially performance-oriented students who were placed in the control group. In other words, Null Hypotheses 2 inferred that the treatment would have no effect on the students' mindset orientation. This hypothesis was tested using a *t*-test of independent samples that compared the mean changes in the total orientation

ratings of the two subgroups that were initially rated as “performance” oriented. Descriptive statistics of the changes or gain scores for the four groups follow in Table 3. These show increases occurred for initially performance oriented students in both the control and treatment conditions and, interestingly, an increase was also seen for initially mastery students in the control condition and a slight decrease was seen for initially mastery students in the treatment condition (which, ironically, was intended to promote mastery orientation).

Table 3

Descriptive Statistics of Change in Goal Orientation Scores for Participants in Each Group

		N	Range	Mean	Mean Gain or Change	Std. Deviation
<i>Performance</i>	Orientation					
Control	Initial	4	57-67	61.50	4.5	4.43
	Post	4	55-81	66.00		10.98
Treatment	Initial	4	60-67	64.25	.75	2.986
	Post	4	60.-75	65.00		6.782
<i>Mastery</i>						
Control	Initial	7	68-81	72.43	3.57	4.504
	Post	7	66-89	76.00		8.347
Treatment	Initial	8	71-79	74.63	-2	3.543
	Post	8	52-89	72.63		10.980

Results of the *t*-test comparing these gains follow in Table 4 and indicated that even though the Performance Control group’s mean change in ratings (4.5 points) was larger than the mean change in the Performance Treatment group’s means (.75 points), the mean difference of 3.75 points was not large enough, given this sample size, to be considered statistically significant ($t=.619$, $p < .558$). Therefore, Null Hypothesis 2 was retained.

Table 4

Results of *t*-test for Independent Samples comparing changes in orientation ratings for participants initially designated as Performance oriented

t	df	Sig. (2-tailed) (p)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
.619	6	.55	3.75	6.05	-11.06	18.56

Equal variances assumed

Comparison of ELA Score Changes for Performance-Oriented Participants with and Without Intervention

Null Hypothesis 3 stated there would be no difference between the gains in the ELA rubric scores of the initially performance-oriented students in the treatment versus the control group. Table 5 presents the descriptive statistics for the differences in the post and pre intervention ELA scores for both subgroups. These data indicated that scores increased for both groups on all three ELA scores except for the control group on the Grammar test.

Table 5

Descriptive Statistics for Changes in ELA Scores for the Two (Control and Treatment) Initially Performance Oriented Groups

Change in ELA Score	Group: Initially Performance Oriented	N	Mean	Std. Deviation	Std. Error Mean
Understanding	Control	4	.50	1.29	.65
	Treatment	4	1.50	1.29	.65
Written Expression	Control	4	.25	.96	.48

	Treatment	4	.00	.82	.41
Grammar	Control	4	-.50	.58	.29
	Treatment	4	1.00	1.41	.71

Table 6 below presents results of T-tests comparing the mean changes in the ELA scores of the initially performance-oriented students across the treatment and control conditions. Results indicated that none of the groups' mean changes in the three ELA scores (described in Table 5) were significantly different. Thus null hypothesis 3 was retained for each ELA test (Understanding, Written Expression and Grammar).

Table 6

Results of *t*-tests of Independent Means Comparing Changes in ELA Scores for the Two Initially Performance Oriented Groups

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Change ELA 1 Understanding	-1.095	6	.315	-1.00	.91287	-3.23	1.23
Change ELA 2 Written Expression	.397	6	.705	.25	.63	-1.29	1.789
Change ELA 3 Grammar	-1.964	6	.097	-1.50	.76	-3.37	.369

Equal variances assumed

Finally, one-way analyses of variance (ANOVAs) were conducted to compare the 4 subgroups' scores on the three pre and three post ELA subtests. Results follow in Table 7.

Table 7

Results of One-way analyses of variance (ANOVAs) comparing the 4 conditions' scores on the six pre-and post-ELA subtests

		Sum of Squares	df	Mean Square	F	Sig.
Pre ELA 1 Understanding	Between Groups	.175	3	.058	.083	.968
	Within Groups	13.304	19	.700		
	Total	13.478	22			
Pre ELA 2 Written Expression	Between Groups	6.262	3	2.087	2.388	.101
	Within Groups	16.607	19	.874		
	Total	22.870	22			
Pre ELA 3 Grammar	Between Groups	2.985	3	.995	1.328	.295
	Within Groups	14.232	19	.749		
	Total	17.217	22			
Post ELA 1 Understanding	Between Groups	5.268	3	1.756	1.468	.255
	Within Groups	22.732	19	1.196		
	Total	28.000	22			
Post ELA 2 Written Expression	Between Groups	3.563	3	1.188	2.237	.117
	Within Groups	10.089	19	.531		
	Total	13.652	22			
Post ELA 3 Grammar	Between Groups	9.000	3	3.000	4.385	.017
	Within Groups	13.000	19	.684		
	Total	22.000	22			

The ANOVAs and subsequent multiple comparisons indicated that the only difference in scores which was statistically significant was between group 1 (performance control, mean=.75) and group 2 (performance treatment, mean=2.75) on the Post ELA Grammar section. Post hoc testing showed the mean difference of 2 between these scores was significant at the $p < .025$ level, with the initially performance oriented group which received the intervention performing better than the matched group in the control condition which received traditional instruction.

Reflection Data

Students reflected on their work and growth by rating their performance upon completion of reading response assignments. To do this, they selected two areas upon which they concentrated their efforts, rating how well they performed on a scale from 1 to 5 and selecting an area of difficulty. After students were given teacher feedback on their assignment, they chose from a list areas upon which they would concentrate their efforts on the next assignments.

The first notable trend was that on the post-teacher feedback reflection, the most popular student choice for an improvement goal was to use teacher feedback. Each time, students correctly identified the teacher's suggestion for improvement. However, although they indicated that they would use the teacher's suggestion, they did not appear to follow through. When completing subsequent assignments, on the pre-teacher feedback portion of the form the selection of "used a teacher suggestion" was only chosen by three students, once each. This suggested that the students did not follow through on the self-set goal from previous assignments. None of those three students were part of the performance treatment subgroup.

On the reflection forms, after completing each assignment, the students were to choose an area in which they performed strongly. This choice was made prior to the teacher giving feedback. The most popular choice for this section of the form was "using text support." It was chosen 74 times in total, out of 99, and was chosen 25 times by four initially performance students in the treatment group and 49 times by the eight initially mastery students in the treatment group. The same concept, "make my answer stronger by including text support," on the post teacher feedback part of the form was the second most popular choice for a future goal in improving their work. This goal was chose 16 times by initially performance students in the treatment group and 14 times by initially mastery students in the treatment group.

The self-rating data of student performance decreased a bit over the course of the study. This rating was assigned by the student upon completion of a writing assignment prior to the teacher providing feedback. The average self-rating was 4.17 for the first assignment. The treatment mastery group average rating was 4.25 and the treatment performance rating was 4. The final assignment received the lowest average self-rating score 3.5. The average treatment mastery rating was 3.75 and the average treatment performance rating was 3.

CHAPTER V

DISCUSSION

This study was designed to investigate the connection between students' motivation goal orientation and their academic performance in reading. Additionally, it sought to determine whether students' mindsets could be influenced through direct instruction regarding the mind's growth capabilities and through meaningful feedback and reflection. The results of this study showed no statistically significant difference between the four mastery and performance subgroups' initial performance on the English Language Arts (ELA) writing task. Results from the study found no significant difference between the gains in orientation scores of students initially classified as performance oriented who were assigned to the control or treatment conditions after several weeks of small group instruction on the brain's ability to grow and teacher feedback and student reflection were provided to the treatment group. Finally, there was no statistically significant difference found between the gains on any of the three ELA tests for the students initially classified as performance-oriented who were assigned to the treatment or the control conditions.

Implications

The results of this study appear to indicate that teaching students about the mind's ability to grow does not affect their goal orientation. It also appears that students' writing performance does not differ according to their goal orientation. However, several factors may have influenced these results.

Students in both the performance control and the performance treatment group increased their scores on the post-orientation assessment. The control performance group increased by four points more than the performance treatment group. Though this increase was larger, it was not

statistically significantly larger. This difference could be attributed to chance and not a failure of the treatment.

In the general education setting, students generally increase their abilities with time and instruction. Scores on the ELA post-assessment reflected this increased ability. However, although students overall performance did not vary significantly between sub-groups, students in the performance treatment group outperformed the performance control group on the grammar section of the ELA rubric. This would indicate that even though the null hypothesis held, there may have been some impact on their performance from using the reflection sheets.

According to Lüftenegger et al., (2014), the TARGET framework for encouraging mastery goal orientation and mastery characteristics (such as growth mindset) suggests that time and evaluation methods are important. The classroom environment should include time for students to think about their own learning. The reflection forms allowed the students time to reflect on their performance. According to the framework, students should receive feedback that is applicable to their future work so that they can set, work toward, and achieve academic goals. This time to reflect may have been a factor that afforded the higher grammar score for the treatment group.

Limitations

Several threats to the validity of this study existed. First, the instrument used to measure student goal orientation was not professionally developed or tested. It was a teacher-created assessment. Although it was adapted from professionally developed measures of goal orientation, the validity of the assessment tool used was not measured. Furthermore, self-report assessments are not as strong of an indicator of actual goal orientation as is tracing students' academic behaviors, such as their note-taking habits and strategy uses (Zhou & Winne, 2012).

The reflection forms used in the study relied on student understanding and motivation to complete them. Students may have rushed and been less likely to choose options that required short responses over those they merely needed to check. Even though the students were motivated at first, they were visibly distressed after a while that they had to complete the reflection form after each writing assignment. They would sigh and ask if they had to complete the sheet. As a goal choice, one student consistently chose that she would use the teacher's suggestion. However, when naming the teacher's suggestion that she would use, she simply stated, "Make my answer better," which was not the teacher's suggestion.

Another limitation was time. Students in the treatment group met five times outside of the regular ELA curriculum to discuss the forms and watch the PowerPoints and flipcharts related to the brain's ability to grow. These sessions were only 10 to 15 minutes long. In an effort to limit the control group's access to the information, discussion of these lessons was not permitted, so learning relied on the students' attention and comprehension of the material presented. The program lasted just four weeks and included eleven writing assignments. Nine of those assignments were used as the reflection piece for the treatment group. These assignments were sometimes given daily. This limited the turnover time between goal setting and application of goals. Due to daily curriculum needs, there was not time for students to confer with the teacher about the reflection forms. Once they began work on the forms, they were on their own to complete them and apply their goals to further assignments.

Students in the control group were very interested in what the performance group was doing. They would make comments such as "When will we get to do something?" and "I thought we were supposed to be in a group too." These students were used to being grouped according to ability and performance, so many saw the grouping as an indication that they were not

performing up to par. This may have motivated them to work harder than usual.

Lastly, a school-wide movement to cultivate a growth mindset had been implemented in the school. It is possible all students in the class were receiving some instruction and teacher feedback in other classes, such as special area classes, that was focused upon increasing growth mindsets, a characteristic of mastery-oriented children. This may have diminished the differences between the groups' orientation scores and obscured the comparisons a bit.

Connections to Previous Research

Students scored high enough on the orientation assessment that the range of scores qualifying one for the performance group was raised. This allowed there to be eight total students in the two performance sub-groups, four in the control group and four in the treatment group. Although younger students can show characteristics of performance goal orientation, research indicates that it is more detectable when students are aged 10 or above (Smiley & Dweck, 1994). According to research cited in this paper, younger students tend to possess more mastery-oriented qualities, such as that seen with a growth mindset. This could explain why so many students scored in the mastery range.

The score on the treatment performance group's grammar section of the ELA posttest was significantly higher than that of the control performance group. Grammar mistakes often are the result of carelessness. Students who have a performance goal orientation have a fixed mindset (Smiley et al., 2012). They do not believe learning is a process, but rather an innate quality. They believe that an individual either is naturally proficient at tasks or not able to do them. This belief system negatively affects their effort and self-regulated learning behaviors (Komarraju et al., 2013). Editing is a self-regulated behavior and is reflected in grammar. Therefore, the fact that the treatment group performed better than the control group is consistent

with the results of these previous findings.

Students' rating of their own work decreased. While the self-rating scores decreased for both subgroups in the treatment group (performance and mastery), within the treatment group, the scores decreased more for the performance treatment subgroup than for the mastery treatment subgroup. The average self-rating score for performance went down one point while the average self-rating went down a half point for mastery treatment students. Since performance goal students view intelligence as fixed, this larger downward trend could indicate that performance goal students were less confident than mastery group students about their performance when they realized the teacher still had a suggestion for improvement. That suggestion could have been considered by the performance-goal students as a threat to their intelligence, whereas the mastery students would consider the suggestion as a means to improve. Similarly, in the study by Smiley et al., (1994) in which children worked on puzzles, the researchers found that performance children's confidence in their ability lowered substantially after failing to complete a puzzle successfully. Prior to solving the puzzle, 80 percent of performance students viewed themselves as proficient at solving puzzles. After failure to complete a puzzle successfully, that percentage dropped to 55% among the performance group. Eighty-eight percent of the mastery goal students felt positive about their puzzle solving abilities prior to failure. That number only dropped ten percent following failure to complete the puzzle.

On the reflection forms, the most popular choice for goal setting was to use the teacher's suggestion. The students did not follow through on this goal, however. When students were asked to choose the strategies that they used while completing each assignment, "used a teacher suggestion" was chosen only three times. No child in the performance group chose this as their elected strategy. Ranellucci et al (2013) found that students who hold performance goals are less

likely to show conceptual change than are their mastery oriented counterparts. Conceptual change occurs when students change previous misconceptions and accept new more accurate information. Students with performance goals generally have a fixed mindset. They believe intelligence is innate. A misconception could be viewed as a threat to intelligence, which may be the reason students did not choose to use the teacher's feedback.

Implications for Future Research

An implication for further research would be having more time to implement the interventions. Changing one's thinking does not occur rapidly. Students likely need more time to absorb the information from the growth mindset assignments. They also may have benefitted from having more activities associated with the slideshows so that they could apply the ideas presented and their understanding of those ideas could be assessed. The reflection form also should be simpler. After writing a two to three paragraph response, participants did not appear to want to complete a form. Also, having less time to conduct the study made it necessary for students to complete a reflection form almost every day. This gave participants' little time to consider the teacher's feedback and relate it to their academic performance. Since they did not have time to contemplate the teacher's suggestions before getting new assignments, it also made it more difficult for them to apply the suggestions to their goals. Successful application would require them to understand the teacher's suggestions and apply them to their work to improve it for the next assignment. It would also require more time for students to seek teacher feedback while completing work.

Conclusion

This study supported the null hypotheses set forth for the research. However, results from the research do not negate the conclusions of previous research cited in the literature

review. Students who were in the treatment group appeared to react to the extra course load the intervention imposed with discouragement. The students who were not in the treatment group appeared to feel left out and dejected. The grammar increase for the treatment condition shows that there is possibility that the intervention benefitted grammar performance on the ELA and that over-time, other areas of academics could improve as well. The TARGET framework is one that fits the current drive in education for a “student centered environment”. Like any program, it needs time to show effectiveness. Future studies should attempt to identify what interventions affect students’ goal orientation and how these interventions affect achievement and motivation in students across various ages and subject areas.

REFERENCES

- Bernacki, M. L., Byrnes, J. P., & Cromley, J. G. (2012). The effects of achievement goals and self-regulated learning behaviors on reading comprehension in technology-enhanced learning environments. *Contemporary Educational Psychology*, 37(2), 148-161.
- Cerasoli, C. P., & Ford, M. T. (2014). Intrinsic motivation, performance, and the mediating role of mastery goal orientation: A test of self-determination theory. *Journal of Psychology*, 148(3), 267-286. doi:10.1080/00223980.2013.783778
- Corpus, J., Ogle, C., & Love-Geiger, K. (2006). The effects of social-comparison versus mastery praise on children's intrinsic motivation. *Motivation & Emotion*, 30(4), 333-343. doi:10.1007/s11031-006-9039-4
- Dweck, C. S. (2010). Even Geniuses Work Hard. *Educational Leadership*, 68(1), 16-20.
- Dweck, C.S. (2006). *Test Your Mindset*. Retrieved from <http://mindsetonline.com/testyourmindset/step1.php>
- Ho, A. N., & Guthrie, J. T. (2013). Patterns of association among multiple motivations and aspects of achievement in reading. *Reading Psychology*, 34(2), 101-147. doi:10.1080/02702711.2011.596255
- Keys, T. D., Conley, A. M., Duncan, G. J., & Domina, T. (2012). The role of goal orientations for adolescent mathematics achievement. *Contemporary Educational Psychology*, 37(1), 47-54.
- Komarraju, M., & Nadler, D. (2013). Self-efficacy and academic achievement: Why do implicit beliefs, goals, and effort regulation matter? *Learning and Individual Differences*, 2567-72.

- Lerdpornkulrat, T., Koul, R., & Sujivorakul, C. (2012). The influence of ability beliefs and motivational orientation on the self-efficacy of high school science students in thailand. *Australian Journal Of Education*, 56(2), 163-181.
- Lüftenegger, M., van de Schoot, R., Schober, B., Finsterwald, M., & Spiel, C. (2014). Promotion of students' mastery goal orientations: Does TARGET work? *Educational Psychology*, 34(4), 451-469.
- O'Keefe, P., Ben-Eliyahu, A., & Linnenbrink-Garcia, L. (2013). Shaping achievement goal orientations in a mastery-structured environment and concomitant changes in related contingencies of self-worth. *Motivation & Emotion*, 37(1), 50-64. doi:10.1007/s11031-012-9293-6
- Ranellucci, J., Muis, K. R., Duffy, M., Wang, X., Sampasivam, L., & Franco, G. M. (2013). To master or perform? Exploring relations between achievement goals and conceptual change learning. *British Journal of Educational Psychology*, 83(3), 431-451. doi:10.1111/j.2044-8279.2012.02072.x
- Smiley, P. A. & Dweck C. S. (1994). Individual differences in achievement goals among young children. *Child Development* 65(6), 1723-1743.
- Zhou, M. & Winne, P. H. (2012). Modeling academic achievement by self-reported versus traced goal orientation. *Learning and Instruction*, 22(6), 413-419.

APPENDIX A

Goal Style Measure

Name: _____ Date: _____

1. Getting a better grade than other students in Reading shows I am smart.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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2. I like when the Reading or writing assignment is challenging and takes a lot of work.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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3. I want to learn as much as possible in Reading.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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4. Reading better than other students in the class shows you are smart.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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5. It is important that I do better than other students on Reading assignments.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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6. When reading aloud, I don't like reading poorly in front of others in the class.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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7. If a Reading assignment is hard, it is because you are not good at it.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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8. Anyone can get better at reading if they work hard.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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9. I want to do well in Reading, so my parents will think I am smart.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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10. I will work harder in order to keep from doing a bad job in front of others.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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11. It is important to get high grades on Reading assignments.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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12. I like to complete Reading tasks that are fast and easy.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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13. You can get better at reading with hard work.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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14. I like reading, even when I make mistakes.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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15. When I don't get a perfect score on a difficult reading or writing task, I plan to try harder the next time.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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16. When I have difficulty reading, I enjoy trying different strategies to see which one helps the most.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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17. I really like reading and writing when I can do it without making mistakes.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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18. If I do not learn the reading skill right away, I know I can learn it with more practice.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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19. I want to learn all that I possibly can in Reading.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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20. It is important for me to understand the skills we learn in Reading.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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61-100 = mastery

20-60 = performance

Lower scores either indicated that students concurred with a performance goal or disagreed with a mastery goal. Higher scores indicated that students concurred with a mastery goal or disagreed with a performance goal. The lowest score a student could receive is 20 points and the highest 100 points. The eighty point span was split into two halves. The lower forty points indicated the student agreed more with performance goals and less with mastery goals. The higher forty points (61-100) indicated that the student agreed more with mastery goals and less with performance goals.

Appendix B
Reflection Rating Form

Name: _____ Day: _____

Lesson/Objective: _____

1. On this assignment I: (Circle one or two. Name the strategy or suggestion if that applies.)

Choices:

Planned my response

Proofread my work

Used text support

Used a starter and conclusion sentence

OR

Used the teacher's suggestion to: _____

2. On a scale from 1 = really poorly, 2= somewhat well, 3=so/so, 4=pretty well, 5= really well, I think I did _____

I had trouble understanding: (Circle one)

The story

What the prompt was asking

How to start my answer

How to explain my thoughts

(Front – to be completed when assignment is first completed by the student)

Teacher Feedback:

You did well on:

Something to work on:

After reflecting on my teacher's feedback, I will be sure that on my next assignment I will: (Choose only one)

___ use the teacher's suggestion to _____

___ plan my answer first by _____

___ make my answer stronger by including text support

___ check my work by _____

Back (To be completed after the teacher has received and scored the assignment)