

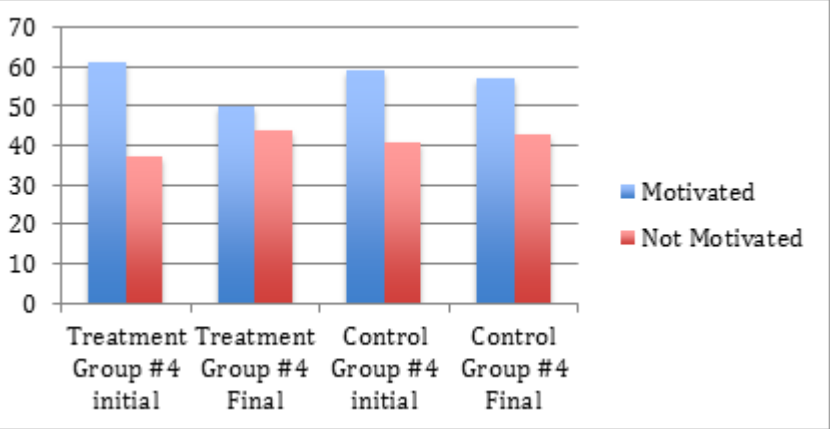
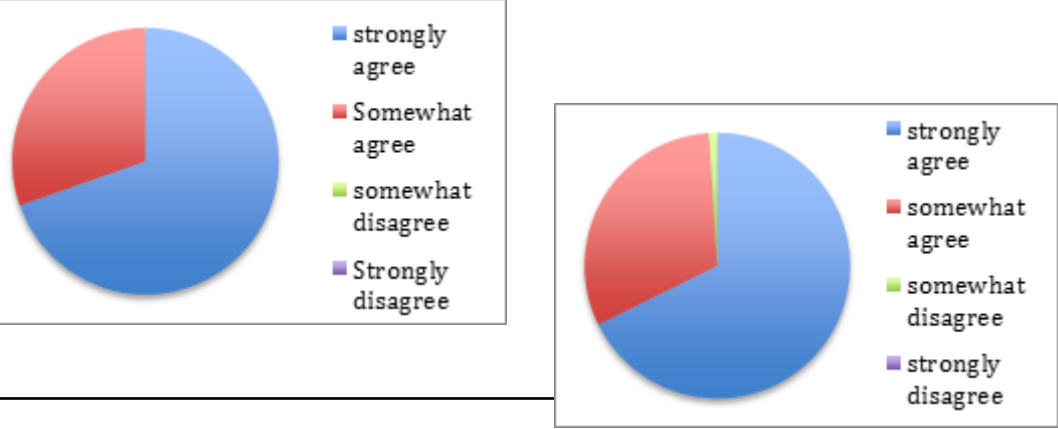
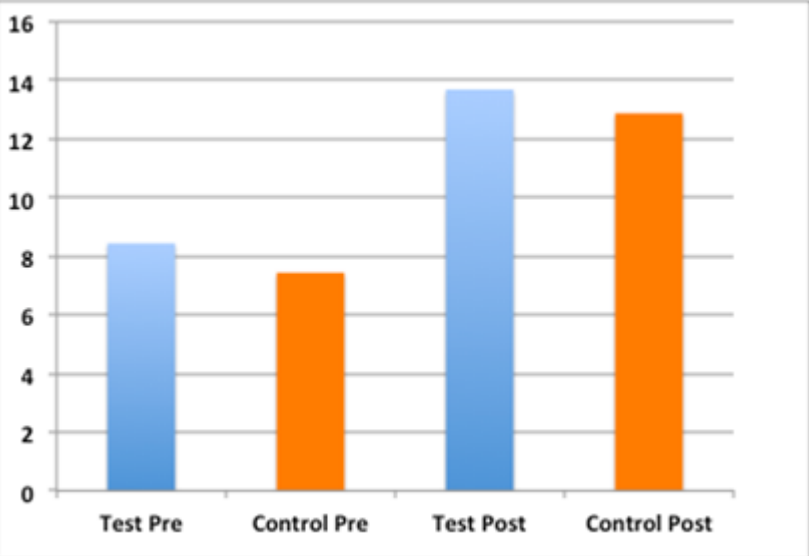
Student Monitored Goal Tracking

A tool to increase student motivation and achievement in science

Background: This year Perry Middle School mandated the use of student goal tracking sheets. Since implementation, teachers have been struggling with how to make goal tracking more meaningful and useful for our students. I researched the topic and discovered experts in the field had recommended using teacher graded formatives to help guide students progress in goal setting. The use of formatives to track goal setting was implemented and tested in this action research project to determine its success on a population of 46 honors 8th grade science students.

Results: Overall the results were marginal and inconclusive. There were not substantial differences between the control and the treatment groups in both summative assessment and survey results. The longer formative tracking goal sheet did slightly decrease the motivation of students and students in that class were less likely to find goal setting useful. There for it was determined that the addition of formative assessment scores to goal setting sheets did not increase student motivation or achievement in science.

Student Goal Tracking										
self/ formativ										
ve										
P										
IP										
NM										
IE										
Standard	I can place rock layers in order using the law of superposition	I can place rock layers in order using the law of cross cutting relations	I can place rock layers in order using the law of superposition	I can place rock layers in order using the law of cross cutting relations	I can compare rock layers over distance using the law of horizontal	I can define geologic dating	I can provide examples of absolute dating	I can decide and differentiate between when to use relative dating	I can identify geologic environments by using clues from the rocks and fossils found in the rock layers	I can analyze geologic events to determine past and predict future changes
Personal Quarter Goal: I will _____										
By _____										
Steps to meet goal:										
Goal met / not met and why?										

Focus/Primary Question: Will the addition of formative assessments on the goal tracking sheets contribute to student success?				Results: Inconclusive/ not a substantial effect on student learning or motivation	
Subquestions	Data Source			Results	
1. Will this intervention increased students understanding of where they are in their learning and their awareness of their growth in learning (Metacognition)?	Student goal tracking sheets	Student summative and formative assessment data	Survey and student interviews		
2. Does having a clear understanding of where they are in their learning increase the motivation of students to obtain their learning goals?	Survey	Student Interviews	Student goal tracking sheets		
3. Will this result in higher levels of achievement in their science classroom?	Pre- test and formative assessments	Student completion of goal tracking sheets	Post-test		
4. Will students not reaching their goals be more motivated to seek out further assistance?	Tutoring sign in sheets	Student interviews	Survey	Initial attendance=1 Final attendance= 4	

PO4: Relative dating Goal Sheet										
Standard Goal		IE	NM	IP	P	Reflection: What do you do well? What can you do to reach goal?				
I can place rock layers in order using the law of superposition and define the law	Pretest	not								
	Formative #1	not								
	Formative #2	not								
I can place rock layers in order using the law of cross cutting, understand and provide examples of types of cross relationships (fault, rock strata)	Pretest	not								
	Formative #1	not								
	Formative #2	not								
	Formative #3	not								
I can compare rock layers over distance using the law of horizontality and cross beds, I can provide examples of index fossils and relative time	Pretest	not								
	Formative #1	not								
	Formative #2	not								
	Formative #3	not								
PO4a	not									

Treatment: The treatment lasted 6 weeks and involved students monitoring their achievement towards learning targets in our relative and absolute dating unit. On Mondays all students rated their progress (as self-assessed) towards the goals on their tracking sheets. Content goals were teacher set while process goals were student set. The treatment group additionally tracked their formative assessment scores on the goal tracking sheets. Prior to summative assessments we referred back to the goal setting sheets and students were reminded of opportunities to receive additional help if needed. Students obtaining this help were tracked to determine if students still not meeting the standard obtained additional supports. Final summative scores were used to determine if students had increased in their learning. Student interviews and surveys, conducted before and after treatment, were used to determine changes in metacognition and student motivation in science.



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