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EDCI 253: Transforming Curriculum — Jelinek Cohort
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Data Analysis Memo Round 3

Research Questions:

The study ultimately is seeking to discover whether training in self-regulated learning techniques taught to a third-grade class in an accelerated school will lead to increases in traits that have been shown to be indicators of educational success.

- Will training the teacher and students in self-regulated learning techniques encourage the students to have a greater willingness or desire to engage in learning and display effort and persistence?
- Can the students understand and begin to use the self-regulated learning tactics and procedures they learned, and do so in a purposeful and intentional way throughout the semester?
- Will encouraging the students to plan, monitor and self-evaluate their learning lead them to a greater self-awareness of how they learn more effectively?

Intervention/Innovation:

This project is examining the efficacy of instruction in an accelerated classroom on how to become a self-regulated learner. It is taking place in two third-grade classes at accelerated schools, Hilldale School and Brookfield School.

Round one of the project focused on broad training sessions with the entire class which outlined what self-regulated learning is and why it is valuable. We discussed the framework of the project and planed how and when the student training in self-regulated learning would take place. The teachers were clear about their roles and enthusiastic about helping to encourage the students to use more self-regulated thinking.

The student training in self-regulated learning began at the start of the semester with the introduction of a major month-long project that the class was tasked with completing. Each student was given a journal in which to write their ideas, plans and reflections. The journals were divided into three sections: Preparation, Help? and How did I do? As a group we explored their motivation for completing the project and exchanged ideas about why it would be valuable to complete the assignment. The students learned how to break larger goals into smaller tasks and how to track their progress in the journals they had received. Part of the planning process was to consider when, where and how they will accomplish each step they had created for themselves. In the help section, the students were periodically prompted to ask themselves

whether they need help completing a goal or a task, and if so, what options may be available to provide that help. If the students did receive help, they were asked to record in their journals where that help came from and how effective it was. They were further prompted to reflect on whether there may have been other sources of help that could have been found and what the possible value of those sources might have been for their project. The last section of the journal was for students to self-reflect upon the assignment before the teacher assigned the grade, and to why the task was difficult or easy for them. While the students were encouraged to use the techniques they had learned in all of their classes, my focus was on the English Language Arts class, and so any training, encouragement and questions from me were all within the context of that class and the projects therein.

In round two, the focus shifted more to one on one discussions and training with individual students. The discussions focused on how their projects were coming along, what sort of self-regulated learning techniques the students were using, and what was or was not working for them. Since the students had been introduced to the idea of how to break larger goals into smaller tasks and how to track their progress in a journal, the students and I examined how closely they were following their self-created timelines and if they were not, what was holding them back. We talked about whether distractions were in their control, and if it made a difference when and where they chose to complete their work. We discussed what help they needed in order to complete different parts of their projects, and I asked them to think about how effective that help was for them. We brainstormed together about what other options might be available to assist them and how they could tap into those resources. Brookfield School was able to complete their Black History Month project before Covid-19 caused the disruption in learning, so the students were able to consider how well they achieved their goals that were created at the beginning of the project and why. I asked them to think about why certain tasks on the assignment were difficult or easy for them and what they might be able to do next time in order to improve the result.

Findings from Previous Two Rounds:

From the beginning of the project, it was clear that the great majority of the students I was working with were generally motivated to learn and understood that they had some role in that process. The questions on the Self-Regulatory Strategy Inventory that asked about class participation, willingness to ask questions, and finishing homework before playing with friends were all above four on a one to five Likert Scale. When I introduced the project, all of the students but one indicated that they were interested in learning new ways to improve their learning ability. However, the motivating factors that were pushing the students to learn seemed to be largely from outside themselves. Fear of a negative consequence, and whether a task was fun or interesting were the most common motivators, and hope for a future benefit or self-improvement were rarely mentioned.

Once the students were halfway through the projects, they began to mention the value of learning more often as a motivational factor. In fact, the importance of learning for its own sake was the most common code I found in my transcription. It seems that as the students began to experience

some difficulty and mental exertion that curiosity and novelty would no longer work as motivating factors. Rather than fearing negative consequences of not completing the projects, the students now explained that the knowledge they were gaining could lead to future rewards, especially financial or life status rewards. I suspected that in round two the students had sought motivation from elsewhere when their original tactics were no longer working, and so they adopted ideas from teachers and parents who were encouraging them to carry on with their projects.

At the beginning of the semester the students also seemed to be relying on outside sources as strategies for completing the large projects they were assigned. Asking teachers and parents for help were mentioned far more often as a strategy for completing projects than using lists or calendars, careful listening, and experimentation. This was in some contrast to the Self-Responsibility Survey, in which on a one to seven Likert Scale the students rated themselves much more responsible than the teacher for finishing projects and overall doing well in school.

In the second round, the majority of codes came from discussion about what strategies the students were using in order to complete their projects. Using books, teachers, parents and siblings were common tactics, but in this round there was also a dramatic increase in the mention of using checklists and calendars to organize their time and establish deadlines for themselves. I had hope that the fact that so many students were setting their own goals with clear steps to attain them was a sign that they were becoming more adept at the strategic action part of self-regulated learning. Another tactic that the students mentioned more often in the second round was brainstorming, which pointed to greater confidence in their own abilities, perhaps since they had already completed several sections of the project successfully.

When this project began, the students' most common measure for evaluating for how well they did was the level of focus and effort they put into the project. I found it interesting that although they were intending to rely more on teachers and parents than other strategical methods for completing their assignments, they often determined ultimate success to be based on their own determination to try their best. Qualities about the work itself, such as creating something that is interesting, consistent, or complete were mentioned, but rarely compared to factors that were dependent upon the student themselves.

In round two the students' evaluation of what would constitute a successful project changed as they overwhelmingly decided that time management was one of the most important factors in order to complete a successful project. Most had adopted the suggestion to break down the larger tasks into timelines and steps, which allowed them greater awareness of when and how they had gotten off track and been forced to spend some long evenings catching up. After giving themselves more time during each step, the second most mentioned strategy that they would change for the next project was to follow the steps they had created more carefully.

Data Collected:

My data collection this round was limited because the school closures made it very difficult to conduct SRL training and observe students, especially without disrupting the remote learning that the teachers were trying to implement during the difficult time of transition. However, I was able to gain some quantitative data by conducting the same Self-Regulation Strategy Inventory and the Perceived Responsibility Scale through Google Classroom instead of in person. Although I did not get as many responses as before, it did give me some information about how some of the students are thinking now compared to the beginning of the semester.

The qualitative data that was used this round was collected during rounds one and two, although reexamined and considered again in a different light. Qualitative data was derived from individual interviews with teachers and students, student journals and my observations. The initial interviews were structured with predetermined questions, however, there were also impromptu follow up questions depending on the responses. During the second round I tried to allow the students to lead the discussion by explaining to me about what they had written in their journals. From there, I would ask questions which gave me project data, and then offer suggestions which hopefully would provide them with techniques that they could use to improve their self-regulated learning ability. Student journals were divided into three sections: Preparation, Help? and How did I do? Before, during and after significant class assignments or projects, the students had been asked to record corresponding information, based on their training, in each section. I observed classes occasionally as a passive observer and sometimes as a privileged, active observer. In both cases I took audio recordings as well as field notes. All observations took place during the English language arts classes.

Data Analysis:

The first of the three questions I am asking in this project asks if the training that the students received encouraged them to display greater willingness or desire to engage in learning and display effort or persistence. Schunk, Meece, & Pintrich (2014) defined motivation as a process through which people initiate and sustain behavior in pursuit of a goal, which suggests that the question I am asking is really whether a student is motivated to learn. Since Cleary suggests that a teacher can directly influence student motivation by helping them learn more kinds of adaptive ways of thinking about themselves and the process of learning, (Cleary 2018,) for round three I decided to use Cleary's five widely recognized sources of motivation as categories, and see whether or not there was an increase throughout the semester in these codes. I posited that if I am seeing more diversity in categories then it might suggest that the training is helping the students to become more self-motivated. With that in mind, I recoded the data into these categories: self-efficacy, value, interest, growth mindset, and autonomy.

The second question I am asking is "Can the students understand and begin to use the self-regulated learning tactics and procedures they learned, and do so in a purposeful and intentional way throughout the semester?" The main tactics we discussed in class were breaking down a project into parts that could be scheduled and planned for and improving tactics for seeking help

when the students became stuck. Better methods for seeking help involved not only coming up with fresh places to look, but also judging which sources might be better than others for various problems. To measure and evaluate progress in this type of strategic thinking I looked for change in codes relating to planning and scheduling for the students' projects, as well as an increase in the diversity of sources the students sought help from. Any codes related to judgement about the sources they found for help and their effectiveness was also noted.

The third question I asked is "Will encouraging the students to plan, monitor and self-evaluate their learning lead them to a greater self-awareness of how they learn more effectively?" In coding rounds one and two, I attempted to make note of all evidence of self-evaluation. Cleary (2018) suggests that students who are developing supportive contexts within which to process and interpret the meaning and relevance of their grades are able to ask three key questions: How well did I do? Why did I perform that way? And What do I need to do to improve? These questions can also be labeled into categories as self-evaluation, attributions and adaptive inferences. In round three I looked for mentions of these categories and attempted to determine if the students were developing greater self-awareness of their learning as the semester continued.

Findings:

While analyzing all three of the questions I asked in this project, I found it interesting that when I changed my coding techniques to more specific, preconceived categories, I seemed to perceive slightly different results than when I allowed the categories to spontaneously generate. For example, some of the codes that I was previously considering to be strategic planning, I realized could also fit within the adaptive inference category and therefore informing metacognitive knowledge. That said, many of the same patterns did come to light.

Of the five categories of adaptive motivation that were suggested by Cleary (2018), I found evidence of four in my round one transcription. Interest in a subject was by far the leading motivator for the students, although there was also some mention of improving themselves, feeling confident about their abilities and the value of the knowledge they were gaining. In round two, value of the knowledge, both in terms of future financial gain as well as for its own sake, became the motivating factor that was mentioned more often. This fits with my suspicion in round two that when the projects became difficult and no longer so interesting the students needed another way to motivate themselves, and so they looked to their most mentioned strategic tools for motivation: their parents and teachers who explained the value of what they were learning. I am making this inference because I do not know where else the students would have been influenced to shift their motivating ideas so dramatically from the beginning of the semester. Cleary (2018) suggests that a wider array of motivating tools suggests better self-regulated learning ability, and while I am not sure that the students were using more techniques instead of just different techniques, I did hear about the ability to learn about subjects on their own as a motivating factor, which was never mentioned in round one. Although the motivating factors shifted, I do not believe the qualitative data infers that the students are better able to motivate themselves after the training.

The second question asks if the students understand and begin to use the self-regulated learning tactics and procedures they learned, and do so in a purposeful and intentional way throughout the semester? It was clear that many students did adopt the more specific tactics that were suggested, mainly that of breaking down large projects into smaller tasks and creating schedules for when they would be completed, although far more students created steps than added timelines to them. At the start of the semester a few students said that they would use these methods, but by the middle of the semester most of the students had taken at least some part of the suggestion to heart and implemented it. Most compelling was the excitement I heard about finishing tasks according to their self-created checklists, or frustration with themselves at falling behind. The training also asked the students to consider where they were seeking help and how effective that help was for the problem. I did hear many judgements about the effectiveness of help sources in round two, including two students that planned to use quite different techniques for completing their next project because what they tried had worked so well. (One found a different classroom teacher who was willing to double check her work, and another learned that finding books for older kids and books for younger kids about the same subject gave her better information for her project.)

The final question of whether the training would lead the students to a greater self-awareness of how they learn more effectively was difficult to answer. Although there was a great deal more self-evaluation in the second round, the nature of the timing of round two would naturally lead to this result. The way that the students would judge a successful project in round one was far more dependent on how much effort and concentration they put into the project. In round two, the question of why they did or did not perform the way they thought that they could was asked far more often, but again, I think that this is more because of the timing of the round rather than a shift in metacognitive knowledge. Cleary (2018) suggests that students who are developing supportive contexts within which to process and interpret the meaning and relevance of their grades are able to ask three questions: How well did I do? Why did I perform that way? And What do I need to do to improve? Although I heard a few students asking all of these questions, I can not tell from my data if there was a marked increase in depth or frequency among most of the students.

At the beginning of the semester, 40 students took the Self-Regulation Strategy Inventory and the Perceived Responsibility Scale. I was able to get 22 students to take the same surveys again through Google Classroom during round three. The results of the Self-Regulation Strategy Inventory do not speak to a marked difference in SRL from the beginning to the end of the semester. 13 of 21 categories moved toward greater SRL tendencies, while 8 moved away. I did find it interesting that some of the categories that increased were those that we spent more training time on like making schedules and finding an appropriate place to study. Although, some of the other categories that we also spent time on, like finding multiple help sources, moved away from SRL tendencies. The Perceived Responsibility Scale also had mixed results, with seven categories moving toward greater self-responsibility and three moving away. The categories involving class participation especially reflected a move toward greater self-responsibility, while those which depended more on student ability moved away.

Planning Your Preliminary Findings Report:

- ***Information about your intervention and data gathering and analysis.*** Specify what data you collected, analyzed and re-analyzed ***for each round***

I initially lead a training session with the teacher that outlined what self-regulated learning is and why it is valuable. I introduced the study and planed with the teacher how and when the student training in self-regulated learning takes place. The training in self-regulated learning for the students began at the start of the semester. The students learned how to break larger goals into smaller tasks and how to track their progress in a journal. The students were asked to consider when, where and how they will accomplish each task. The students were periodically prompted to ask themselves whether they needed help completing a goal or a task, and if so, what options might be available to provide that help. If the students did receive help, they were asked to record in their journals the questions they asked and where they received the help from. They were further prompted to reflect on whether there may have been other sources of help that could have been found. In their journals, students were asked to self-reflect upon major tests and assignments before the teacher assigned a grade and were encouraged to ask why the task was difficult or easy for them. While the students were encouraged to use the techniques in all classes, focus was placed on using the journals and asking pertinent questions during the English language arts classes.

<u>Round 1:</u>

The data I analyzed in round one consisted of initial observations, interviews, and survey analysis.

Quantitative data was derived from two surveys measured on the Likert scale. The first is a version of the Self-Regulation Strategy Inventory created by Cleary (2006,) which was adjusted for third grade students. The second survey given was the Perceived Responsibility Scale by Zimmerman and Kitsantas (2005.) The Perceived Responsibility Scale survey was shortened to ten questions, and also adjusted for third grade students.

Qualitative data was derived from interviews with teachers and students, student journals and my observations. Interviews were structured with predetermined questions, however, there were also impromptu follow up questions depending on the responses. One teacher and four students from each class were interviewed. The student journals had several roles in the project, and so before the journals were given to the students, I divided them into three sections: Preparation, Help? and How did I do? Before, during and after significant class assignments or projects, the students had been asked to record corresponding information, based on their training, in each section. Data gleaned from the journals provided insight into a student's level of strategic action and metacognitive knowledge. Observational data and written data from the student journals was collected throughout the semester at times both at specific and impromptu. I observed the classes occasionally as a passive observer and sometimes as a privileged, active observer. In both cases

I audio recorded the class as well as took field notes. The focus of my observations was on what took place during the English language arts classes.

Round 2:

All of the data collected during this round was qualitative, consisting of recordings of individual conversations I had with the students about their work, and classroom observations. The individual conversations were with both voluntary and arbitrarily chosen students. The same students tended to volunteer to speak with me during any given session, which did offer the advantage of being able to track their progress more closely, but I also wanted to get information from students who were not as interested in learning self-regulation methods, so occasionally I randomly chose other students to supplement the data pool. Classroom observations were not specifically planned but were always during the English language time period.

In this round I did not have preconceived interview questions, rather I tried to allow the students to lead the discussion by explaining to me about what they had written in their journals. From there, I would ask questions which gave me project data, and then offered suggestions which hopefully would provide the students with techniques that they could use to improve their self-regulated learning ability.

I did not act as an active observer during any of the classroom observation sessions this round. I only listened, audio-recorded and took notes, attempting to perceive whether self-regulated learning techniques were being used or not. The teachers did not modify any lesson plans during the observed classes.

Round 3:

My data collection this round was limited because the school closures made it very difficult to conduct SRL training and observe students, especially without disrupting the remote learning that the teachers were trying to implement during the difficult time of transition. However, I was able to gain some quantitative data by conducting the same Self-Regulation Strategy Inventory and the Perceived Responsibility Scale through Google Classroom instead of in person. Although I did not get as many responses as before, it did give me some information about how some of the students are thinking now compared to the beginning of the semester.

Because I did not have much new data to work with, I tried to reexamine my data in light of answering my questions according to the definitions that Cleary (2018) provided, as well as more specifically to the training that I had provided.

Results/Project Findings

Round 1:

When referencing how the students motivated themselves, the most common method was fear of a negative outcome if they did not complete the work. Being able to perceive the task as play

was also motivating to many. If a task was perceived as "fun," "interesting," or if they were curious about it, the students were more motivated to complete the task. Hope for a future reward or benefit was only mentioned twice during the initial interviews and observations. The primary strategy the students relied upon when considering how they would complete a task was to rely on adults to guide them. Although most of the students also had secondary strategies such as using calendars and lists to keep them on track, being sure that they had all necessary materials, and using internet resources, most of the students mentioned adults in their lives as a way for them to be sure the task was completed. When the students were asked to consider how they would evaluate whether a task was done well or not, most thought that the most important factor was whether they applied an appropriate level of focus to the task. Qualities about the work itself, such as creating something that is interesting, consistent or complete were mentioned, but rarely compared to factors that were dependent upon the student themselves.

The Self-Regulatory strategy inventory suggested that the students are cognizant of the importance of finding a good place to work where they can minimize distractions. They are not afraid to ask questions in class and are not likely to give up when something is difficult. While the survey suggested that they are confident they can finish their work on time, the varied results on how they handle distractions suggests to me that the work may be completed at the last minute. The Perceived Responsibility Scale suggested that the students feel largely responsible for their self-motivation and task completion. The students do not feel as responsible for whether the they can understand the teacher or class discussions.

The data gathered in the first round suggests that the students can benefit from training in self-regulated learning. When trying to motivate themselves they can learn to incorporate positive motivation through considering the long-term benefits of completing a project. Also, in order to become better self-regulated learners, they need to be able to create defined goals, strategize their tasks and increase their inventory of tactics. Once the goals the students strive for are clearer, it should inherently lead to a greater ability to reflect on the project outcome when analyzing whether or not the outcome was a success, rather than only considering their own state of mind.

While the training plan I put together did teach positive motivation, specific planning and goal setting, and project analysis based on multiple factors, I found that it was difficult to train all the students at once effectively because of the limited class time I had and the varying abilities of the students. In round two I continued to teach the broad subjects and strategies to the entire group, but added more one-on-one sessions so that I could discuss specific issues and strategies with the students that were unique to their situation. This allowed me to collect more qualitative data as I was able to record and code the individual training sessions.

<u>Round 2:</u>

As the students became more involved with their large projects, the ways they motivated themselves seemed to change from the methods they were using at the beginning of the semester. Before they began the projects, there were references to looking forward to the project and beginning work on it because it might be fun, they were curious, and it was new subject matter.

Once the students were halfway through the projects, these references tended to change to more general ideas about the importance of learning. In fact, the importance of learning for its own sake was the most common code I found in my transcription. Future financial reward was also mentioned fairly often, although not as much as the importance of being well educated. I did hear several times about teachers and parents pressuring them to complete the assignment as a motivator, but not as often as other motivating ideas, perhaps because if the student accepted the motivational tactic, they then adopted the ideas as their own. In fact, fear of consequence as a motivator came up far less often than at the beginning of the semester and seemed to be replaced with an idea of a reward for having completed the project.

Since the students were in the midst of their projects during this round, the majority of codes came from discussion about what strategies they were using in order to complete their projects. There was direction given by the teachers in class to find specific books to help them with their projects, so it was not surprising that using books and libraries came up often as strategies. Using parent, teacher and siblings for help to complete the projects were also mentioned with similar frequency compared to the beginning of the semester. There was a dramatic increase in the mention of using lists and calendars, as well as establishing deadlines for themselves. Several of the students even acknowledged that they were behind on some areas of their plan and told me what they were going to do in order to catch up.

Many students in this round mentioned some form of brainstorming in order to overcome hurdles or to begin new phases of their projects. There seemed to be a greater confidence in their own ability to complete the assignment than before. The two other strategies that were in the SRL training that were mentioned by students during this round but not much at all during round one were to be rested and fresh before starting work, and to be sure that the necessary tools were assembled before beginning. The frequency of these codes was not dramatically greater, however.

When the semester began, the students speculated that hard work, listening carefully, and focus would be the most important factors in determining whether a project would be successful. After completing their Black History Month project, the students at Brookfield shifted their priorities and overwhelmingly decided that time management was one of the most important factors in order to complete a successful project. Interestingly, since so many of them had created steps for completing their project and plans for when they would finish each step, most were quite aware of where and when they had gotten off track. After giving themselves more time during each step, the second most mentioned strategy that they would change for the next project was to follow the steps they had created more carefully.

Ordinarily, in round three I would be looking more closely at the students' metacognitive analysis of their projects as well as deeply considering how their approach has changed to the next big project assigned to them. I would be collecting more data from the journals than I had before and attempting to understand and define whether the training and suggestions I gave them made a difference in their learning tactics over time. Because the schools have been closed, instead I examined the data I already had more closely and considered any trends in their

learning tactics leading toward or away from the questions I asked about self-regulated learning. I would like to consider what parts of the training have been the most effective, whether the age of the participants may have been a factor and hypothesize about what results I might see if the SRL training was successful.

Round 3:

Of the five categories of adaptive motivation that were suggested by Cleary (2018), I found evidence of four in my round one transcription and reexamination of the data. Interest in a subject was by far the leading motivator for the students, although there was also some mention of improving themselves, feeling confident about their abilities and the value of the knowledge they were gaining. In round two, value of the knowledge, both in terms of future financial gain as well as for its own sake, became the motivating factor that was mentioned more often. I did hear about the ability to learn about subjects on their own as a motivating factor, which was never mentioned in round one. Although the motivating factors shifted, I do not believe the qualitative data infers that the students are better able to motivate themselves after the training.

It was clear that many students did adopt the more specific tactics that were suggested, mainly that of breaking down large projects into smaller tasks and creating schedules for when they would be completed, although far more students created steps than added timelines to them. At the start of the semester a few students said that they would use these methods, but by the middle of the semester most of the students had taken at least some part of the suggestion to heart and implemented it. I did hear many judgements about the effectiveness of help sources in round two, including two students that planned to use quite different techniques for completing their next project because what they tried had worked so well.

Although there was a great deal more self-evaluation in the second round, the nature of the timing of round two would naturally lead to this result. The way that the students would judge a successful project in round one was far more dependent on how much effort and concentration they put into the project. In round two, the question of why they did or did not perform the way they thought that they could was asked far more often, but again, I think that this is more because of the timing of the round rather than a shift in metacognitive knowledge. I cannot tell from my data if there was a marked increase in depth or frequency among most of the students.

At the beginning of the semester, 40 students took the Self-Regulation Strategy Inventory and the Perceived Responsibility Scale. I was able to get 22 students to take the same surveys again through Google Classroom during round three. The results of the Self-Regulation Strategy Inventory do not speak to a marked difference in SRL from the beginning to the end of the semester. 13 of 21 categories moved toward greater SRL tendencies, while 8 moved away. I did find it interesting that some of the categories that increased were those that we spent more training time on like making schedules and finding an appropriate place to study. Although, some of the other categories that we also spent time on, like finding multiple help sources, moved away from SRL tendencies. The Perceived Responsibility Scale also had mixed results, with seven categories moving toward greater self-responsibility and three moving away. The

categories involving class participation especially reflected a move toward greater self-responsibility, while those which depended more on student ability moved away.

Discussion and Conclusions- How your findings relate to teaching and learning in light of your goals and the literature you reviewed

My project focused on self-regulated learning and whether a relatively short period of training a third-grade class would prompt and enable the students to adopt more self-regulated behaviors. Throughout the project I have measured SRL in terms of adaptive motivation, strategic action and metacognitive learning. The project yielded different results for each area.

Throughout the semester, I did see a shift in the ways that the students motivated themselves, but I cannot correlate the change to the training in SRL. The students seemed to switch from motivating themselves by looking forward to the project and beginning work on it because it might be fun, curiosity, and the fact that it was new subject matter, to more general ideas about the importance of learning and possible financial value they might receive later. It is possible that the reason they adopted the importance of learning for its own sake can be attributed to the influence of parents and teachers. I considered more than once how interesting it was that third graders, 8 and 9 years old, were explaining to me that it was important to know about black history so that we would not repeat the mistakes of the past, or that someone who can communicate their ideas well through writing feels more satisfied with themselves than someone who cannot. Although I am working with accelerated students, I doubt that they came up with these motivating ideas on their own. It could be that when the assignment became difficult, they began to look elsewhere for motivation, and the natural place to look was to those in authority around them who could give them new reasons to keep working.

Cleary (2018) outlines five different types of motivation: self-efficacy, value, interest, growth mindset, and autonomy. He then goes on to suggest that educators should attempt to concurrently target multiple motivational beliefs rather than one or two in isolation. Schunk & Zimmerman (2008) also suggest that there are many parts to the motivational puzzle, and Linnenbrink-Garcia & Patall (2016) suggest that you will probably have greater success motivating students when you are knowledgeable about the different sources of motivation, and are able to concurrently target several of them. In round three I reexamined the data and searched for evidence of students using the five motivators Cleary suggests. Although I did find evidence of five in round two but only four in round one, the difference in motivating factors between the rounds was mainly a shift between interest to value.

The second question I asked was whether the students could understand and begin to use the self-regulated learning tactics and procedures they learned, and do so in a purposeful and intentional way throughout the semester? It was clear that many students did adopt the more specific tactics that were suggested, mainly that of breaking down large projects into smaller tasks and creating schedules for when they would be completed, although far more students created steps than

added timelines to them. At the start of the semester a few students said that they would use these methods, but by the middle of the semester most of the students had taken at least some part of the suggestions to heart and implemented them. Most compelling was the excitement I heard about finishing tasks according to their self-created checklists, or frustration with themselves at falling behind.

Devising a task-specific strategic plan is one of the hallmarks of self-regulated learning, and the fact that so many students were setting their own goals with clear steps to attain them is promising. Allowing students to set learning goals can enhance their commitment to attaining them, which is necessary for goals to affect performance (Locke & Latham, 1990.) Schunk (1985) found that self-set goals promoted self-efficacy. I especially appreciated that they broke the projects into steps, because they would be achieving smaller goals along the way to the larger goal of completing the project. Schunk (2001) suggests that goals that incorporate specific performance standards raise self-efficacy because progress toward an explicit goal is easy to gauge.

My measure of whether or not the SRL training had encouraging the students to plan, monitor and self-evaluate their learning, which lead them to a greater self-awareness of how they learn more effectively was difficult to assess. Between rounds one and two I did see a difference in the way that students evaluated a successful project. When the semester began, the students speculated that hard work, listening carefully, and focus would be the most important factors in determining whether a project would be successful. After completing their Black History Month project, the students at Brookfield shifted their priorities and overwhelmingly decided that time management was one of the most important factors in order to complete a successful project. Interestingly, since so many of them had created steps for completing their project and plans for when they would finish each step, most were quite aware of where and when they had gotten off track. After giving themselves more time during each step, the second most mentioned strategy that they would change for the next project was to follow the steps they had created more carefully.

However, in round three when I shifted the focus to questions that Cleary (2018) suggested were hallmarks of students who are developing supportive contexts within which to process and interpret the meaning and relevance of their grades, my results were not very clear. The questions are: How well did I do? Why did I perform that way? And What do I need to do to improve? These questions can also be labeled into categories as self-evaluation, attributions and adaptive inferences. Although there was a great deal more self-evaluation in the second round, the nature of the timing of round two would naturally lead to this result. The way that the students judged a successful project in round one was far more dependent on how much effort and concentration they put into the project, while in round two, the question of why they did or did not perform the way that they thought they could was asked far more often, but again, I think that this is more because of the timing of the round rather than a shift or increase in metacognitive knowledge.

Ultimately, in the third-grade classes within which I worked, the SRL training seemed to be most impactful in the area of strategic planning and goal creation. The other SRL training may have also had an impact, however I was unable to see a correlation with clarity. With more time, I would have been able to focus the training more on reflection and consideration of what worked or did not in previous projects, which may have helped the students with more diverse motivation strategies as well as metacognitive knowledge.

Literature Connections:

Cleary, T. J. (2018). *The self-regulated learning guide: Teaching students to think in the language of strategies*. New York, NY: Routledge.

This book outlined different types of motivation, and why it is important to encourage students to use more than one. It also provided me with a definition and way to measure metacognitive knowledge.

Linnenbrink-Garcia, L., & Patall, E. A. (2016). Motivation. In L. Corno & E. M. Anderman (Eds.), Handbook of educational psychology (p. 91–103). Routledge/Taylor & Francis Group.

Information about different types of motivation and why it is valuable to target several types at once when educating students.

Locke, E. A., & Latham, G. P. (1990) *A Theory of Goal Setting and Task Performance*. Englewood Cliffs, NJ: Prentice Hall.

A study about goal setting and why it is valuable to have a student set their own goals.

Pintrich, P.R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. H. Schunk & J. L. Meece (Eds.), *Student perception in the classroom* (pp. 247-266). Hillsdale, NJ: Lawrence Erlbaum Associates.

A study about students' motivational beliefs and how they correlate with the idea of self-competence.