CLEARVIEW
CURRICULUM CONNECTION
RESEARCH BASED INSTRUCTIONAL STRATIGIES

Research Based Instructional Strategies: Hattie and Marzano

The OIP calls for the use of research based instructional strategies. Therefore, a section of the Curriculum Connection will be devoted to a review of a particular research based strategy. This is just the sharing of ideas and the sharing of instructional best practices. Some ideas will resonate and be used and other may not. However, the key is to share and build capacity for the pursuit of instructional best practice. The work of **John Hattie** and **Robert Marzano** are most often associated with instructional research. This section will mention their research often. However, what strategies do both agree on? There are 8 and they are listed to the right. Some popular strategies are listed; however, check out the link below for a more detailed description of why both believe in the effectiveness of each. Agree with their research?

1. **Clear Focus for the Lesson**
2. **Direct Instruction**
3. **Student Engagement**
4. **Feedback**
5. **Multiple Exposures**
6. **Application of Knowledge**
7. **Cooperative Learning**
8. **Build Self-Efficacy**

http://www.evidencebasedteaching.org.au/robert-marzano-vs-john-hattie/

Research Based Instructional Strategies: The Marzano 9

The OIP calls for the use of research based instructional strategies. Therefore, a section of the Curriculum Connection will be devoted to a review of a particular research based strategy. This is just the sharing of ideas and the sharing of instructional best practices. In this issue I included a very popular list of the Nine Essential Strategies from **Robert Marzano**. This is his list of the nine highest yielding instructional strategies (in order) based on his research. Marzano has some common strategies that we see used in Clearview classrooms on a daily basis. Which of the nine do you most often use? Which could you learn more about to connect to students and tap into their learning styles? For the next several issues we will take one of the nine and look at it more in depth and provide more info on using the strategy in our classrooms. Check the link for more in depth detail on the list!!

Identifying Similarities & Differences
Nonlinguistic Representations
Summarizing & Notetaking
Setting Objectives & Providing Feedback
Reinforcing Effort & Providing Recognition
Generating & Testing Hypotheses
Homework & Practice
Cues, Questions, & Advance Organizers
Cooperative Learning

http://www.ascd.org/publications/curriculum-update/winter2002/Getting-Acquainted-with-the-Essential-Nine.aspx

Research Based Instructional Strategies: Feedback

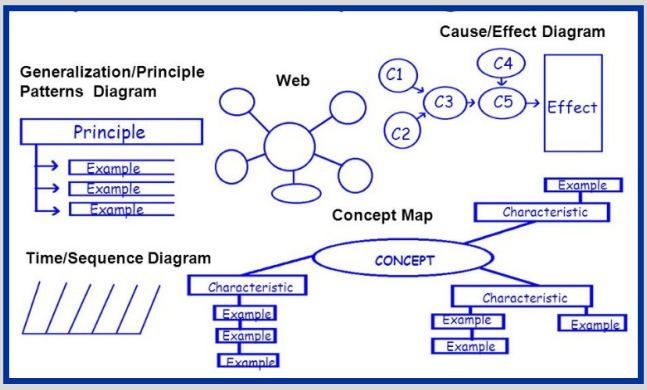
The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this issue I reviewed one of the Marzano 9: Feedback. Teachers know that feedback is critical for their students; however, what do researchers say are effective strategies for feedback? What resonates with students for effective learning? The link below identifies 7 key characteristics of effective feedback from educator and author **Grant Wiggins**. How is feedback used in our Clipper classrooms?

https://www.teachthought.com/pedagogy/7-key-characteristics-of-better-learning-feedback/

1. Goal Referenced
2. Tangible and Transparent
3. Actionable
4. User-friendly
5. Timely
6. Ongoing
7. Consistent

Research Based Instructional Strategies: Nonlinguistic Representation

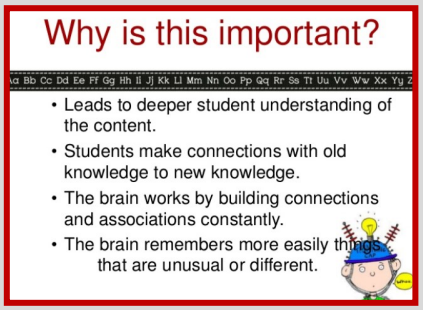
The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this issue I will continue to review another of the Marzano 9: Nonlinguistic Representation. What is it? Non-linguistic knowledge focuses on storing information using mental pictures, images, and physical sensations. Studies have shown that teachers primarily use linguistic methods to convey knowledge to their students. Teachers must understand that students need an equal balance of linguistic and non-linguistic methods in every-day learning experiences. The key is to produce non-linguistic representations in the minds of students for long-term memory. It goes with the old saying "A picture is worth a thousand words." For a learner that could be very true. The most common example that teachers are probably aware is the use of graphic organizers, example: Venn Diagrams. How do Clearview teachers use nonlinguistic representation in our classrooms? Is there a balance between words/phases and nonlinguistic? Check out the link below to learn more!!



http://www.ascd.org/publications/educational-leadership/may10/vol67/num08/Representing-Knowledge-Nonlinguistically.aspx

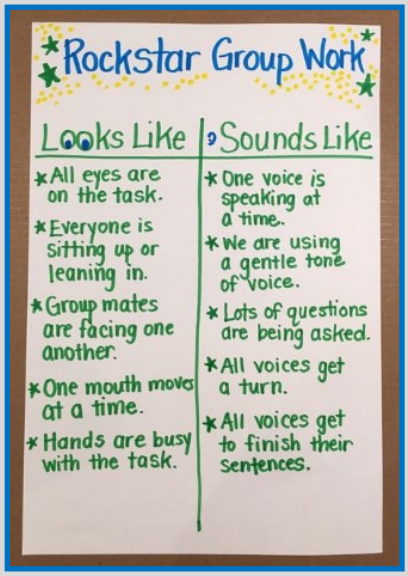
Research Based Instructional Strategies: Identifying Similarities and Differences

The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this fifth issue I will review another of the Marzano 9: Identifying Similarities and Differences. This strategy actually falls #1 on the chart for the Marzano 9 as having the highest yield as an instructional strategy. This is used quite often in many forms. This involves the ability to break a concept into its similar and dissimilar characteristics allowing students to understand and sometimes solve complex problems by analyzing them in a more simple way. It involves four concepts: comparing, classifying, creating metaphors, and creating analogies. Some common examples of comparison activities include the creation of a Venn Diagram and a Comparison Matrix. By conducting an activity where students are comparing and contrasting it allows for them to make connections to other ideas that they may be more familiar with in order to form understanding. What activities are conducted in Clearview classes?? More info below...



https://www.slideshare.net/eightieslingo/marzano-identifying-similarities-and-differences

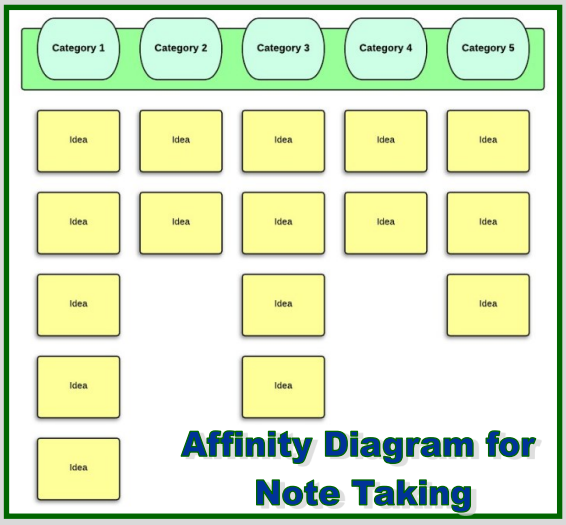
Research Based Instructional Strategies: Cooperative Learning



The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this issue I will review another of the Marzano 9: Cooperative Learning. Getting into groups, right? This strategy involves a lot more than that - all aspects should be considered when utilizing this strategy in order to get the maximum yield as Robert Marzano has researched. This is a common strategy I see used and in my short time at Clearview I have seen it in use on a number of visits to class. Key aspects to effective use of cooperative learning according to Marzano include: limit ability grouping, keep groups small, apply consistently but do not overuse, and assign roles and responsibilities in groups. As mentioned above collaboration is a key 21st century skill - students in their working world will be required to effectively work with others. Even in the education field TBTs are an example of such a requirement. As a high yield instructional strategy kids can simply learn from their peers and share ideas from a different voice other than the teacher. In addition, have kids present material attained from group work. This is yet another 21st Century Skill important for kids. All can be gained through the use of Cooperative Learning. Want to learn more about this Marzano high yield strategy? See the link below for more details …

http://www.ascd.org/publications/educational-leadership/oct14/vol72/num02/Making-Cooperative-Learning-Powerful.aspx

Research Based Instructional Strategies: Summarizing and Note Taking



The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this issue I'm reviewing another Marzano 9: Summarizing and Note Taking. This involves a strategy by which students eliminate unnecessary information, substitute information, keep important information, write/rewrite, and analyze information. Students should be encouraged to put some information into their own words. One key factor from the Marzano research is that verbatim note taking is the least effective technique. Often times students are asked to write notes word for word where as the more effective strategy is to have students process and apply new content by putting it into their own words. What does this look like in class?? This would involve the teacher requiring students to identify key concepts through the use of bullets, outlines, clusters, narrative organizers, and journal summaries. Students could also break down larger content and create simple reports, quick writes, graphic organizers, column notes, and affinity diagrams. The key according to the research is to attempt to stay away from verbatim note taking and summarizing. However, this is often what we think of with this strategy. Do students just copy your power point? Then this is not the use of this high yield strategy. Other ideas exist that require analysis, a higher order thinking skill at **Depth of Knowledge Level 3**. Check out the link below on how you can transform summarizing and note taking to a higher level of learning for students!!

https://www.slideshare.net/ageller/marzano-summarizing-and-note-taking

Research Based Instructional Strategies: Homework and Practice

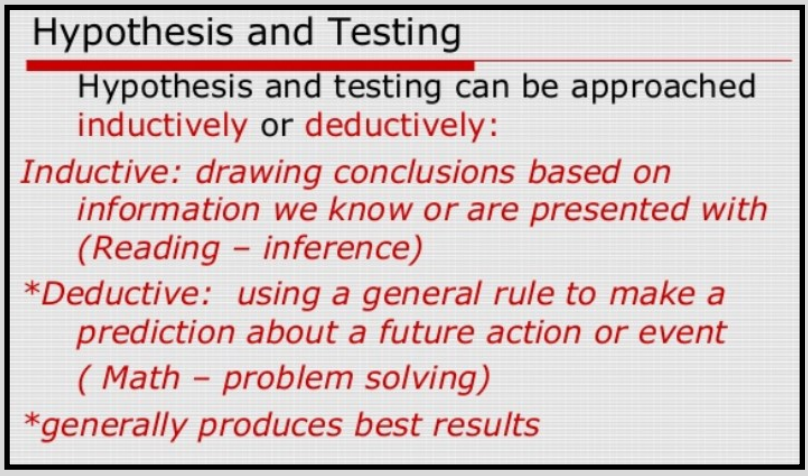
The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this issue I'm reviewing another Marzano 9: Homework and Practice. This involves providing opportunities to extend learning outside the classroom. All homework should have a purpose and that purpose should be readily evident to the students. Additionally, feedback should be given for all homework assignments. What Marzano research is stating is not an effort on compliance—if a student does the homework they get credit; if they do not do the homework they get zero credit. What Marzano is actually stating as a high yielding strategy is "practice" or "practice with a purpose." If you are assigning homework have students explain its purpose and identify its relevance to the class's learning goals. Also make adaptations to homework assignments for specific students who are having difficulty with the lesson content. The key is that the homework is monitored for accuracy not just compliance. Kids see through that and the importance as a strategy for learning is lost. This happens often. Therefore, if we are assigning homework in Clearview for our students lets be sure that 3 key aspects apply:
1) It is purposeful to the learning objectives of the unit 2) It is checked for accuracy and monitored to identify growth. And 3) it is differentiated to account for individual student needs. It should NOT just be a practice for COMPLIANCE. For more info on this from Marzano, check below:

https://www.slideshare.net/mrherrera/homework-and-practice-presentation

Homework that is graded is more than twice as effective as homework that is not graded, BUT homework with teacher's comments as feedback is the most effective of all (graded or not).

Research Based Instructional Strategies: Generating and Testing Hypothesis

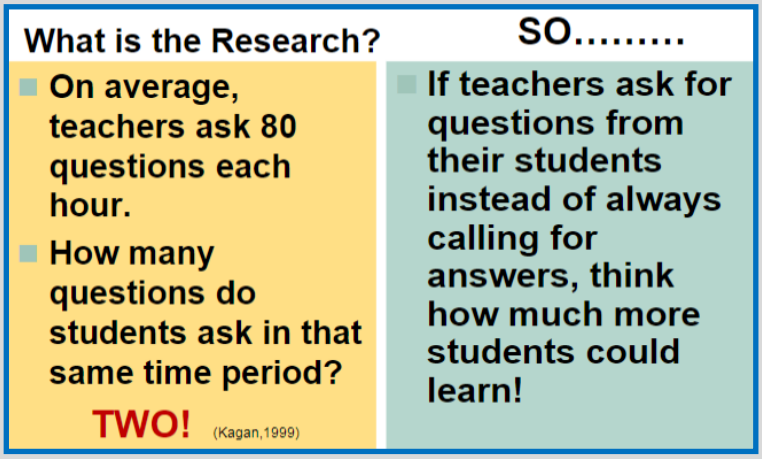
The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a particular research based strategy. In this issue I'm reviewing another of the Marzano 9: Generating and Testing Hypothesis. This involves a strategy by which students generate, explain, test, and defend hypotheses using both inductive and deductive strategies through problem solving, history investigation, invention, experimental inquiry, and decision making. We are talking Depth of Knowledge 3 and 4 here! This is more than just for a science class setting. Examples and verbs of its use in class include: Thinking processes, constructivist practices, investigate, explore, social construction of knowledge, use of inductive and deductive reasoning, questioning the author of a book, finding other ways to solve same math problem. I think you will find such action in the SOLE activities that you will learn about next week. A key is that kids are identifying a theory to solve a problem or answer a question then they do the work to prove the theory. The key for the student and the strategy is the investigation process. The journey to find the solution or answer can lead to the discovery and learning of many things associated with the unit as a whole. Vocabulary discovery is an example of learning that can happen along the way! Want to learn more about it? Check below.



https://www.slideshare.net/hgrubbs/ch-9-generating-and-testing-hypotheses

Research Based Instructional Strategies: Questions, Cues, and Advance Organizers

The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a specific research based strategy. In this issue I'm reviewing another of the Marzano 9: Questions, Cues, and Advance Organizers. Marzano states that questions are effective tools when given before a learning experience. Cues and questions should focus on what is important as opposed to what is unusual with the learning content. In addition, get the kids to ask the questions!! As you'd expect, questions designed for deeper understanding will increase student interest. Higher level questions produce deeper learning more than lower level questions. Questions should require students to analyze information in addition to just recall. Ask students to restructure information or apply knowledge in some way. This is DOK 3 and DOK 4. The right type of questions can lead to a deeper learning experiences for our students.



https://studylib.net/doc/5424737/cues--questions--and-adv.organizers

Research Based Instructional Strategies: Reinforcing Effort and Providing Recognition

The OIP calls for the use of research based instructional strategies. A section of the Curriculum Connection will be devoted to a review of a specific research based strategy. In this issue I'm reviewing the last of our Marzano 9: Reinforcing Effort and Providing Recognition. Showing the connection between effort and achievement helps students to see the importance of effort and allows them to change their beliefs to emphasize it more. Recognition is more effective if it is contingent on achieving some specified standard. Examples: 1. Share stories about people who succeeded by not giving up. 2.Find ways to personalize recognition. Give awards for individual accomplishments. 3. Pause, Prompt, Praise. If a student is struggling, pause to discuss, prompt with specific suggestions to help them improve, if performance improves offer praise. These are simple examples that can have a big impact. This connects to promoting a growth mindset. We want our Clippers to be recognized for their efforts so that these examples become contagious in the school. In addition, we want all Clippers to believe they can achieve despite setback or prior failure; we want to promote a growth mindset that encourages grit and determination. This will lead to increased academic achievement!

Hold **high expectations**, display finished products, praise students' effort, encourage students to share ideas and express their thoughts, honor individual learning styles, conference individually with students, authentic portfolios, stress-free environment, high-fives, etc.

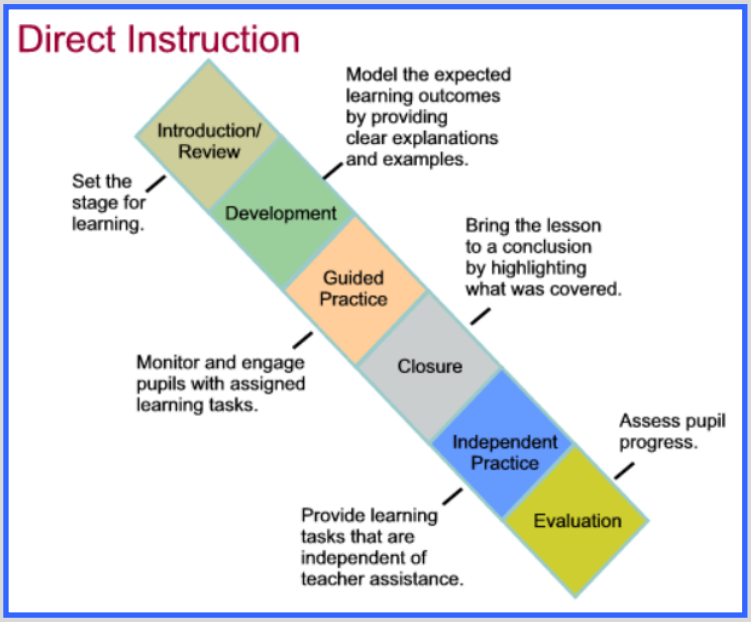
Reinforcing effort and providing recognition
(Yields a 29 percentile gain)

http://www.ascd.org/publications/curriculum-update/winter2002/Getting-Acquainted-with-the-Essential-Nine.aspx

Research Based Instructional Strategies: Direct Instruction

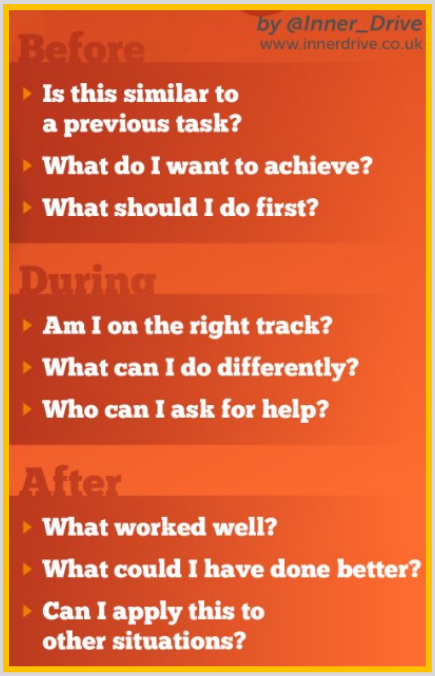
The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing Direct Instruction. John Hattie identifies DI as a high yielding strategy; (.59 effect size) However, many myths surround DI and it should be used correctly (see link). DI is the use of explicit teaching techniques, usually to teach a specific skill. It is a teacher-directed method; the teacher stands in front of a classroom presenting information. The cycle of DI involves: Introduction, Modeling, Guided Practice, Closure, Independent Practice, and Assessment. DI has critics as we move toward 21st Century Skills and PBL. Does DI result in deep learning? Some believe it does not. However, according to research it can be effective but it should not be a teacher's lone strategy; students require skills attained beyond DI. Link…

http://www.evidencebasedteaching.org.au/direct-instruction-facts-myths/



Research Based Instructional Strategies: Metacognitive Skills

The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing another of John Hattie's top ten: Metacognitive Skills. John Hattie has identified teaching metacognitive skills as a high yielding strategy with an effect size of 0.69, making it one of the most effective teaching interventions. This concept involves learning about one's own learning. It involves teaching and encouraging students to self-assess and reflect. Key questions can spark this skill in our students. Check out the graphic to the right. These are questions that will raise self-awareness and reflection before, during, and after a learning activity. By having the students answer these questions it can also help as an assessment tool for the teacher. We want students to become advocates for their own progress and learning. Meta-cognitive learners are more likely to notice struggle and adjust study, strategies to endure. Grit! These are the students who try to clarify their understanding rather than passively continuing on with the assignment. By having students aware of their own learning they can build skills that will help them persevere through difficult tasks. Check out the article below for more!



http://www.ascd.org/publications/books/117002/chapters/The-Case-for-Teaching-for-and-with-Metacognition.aspx

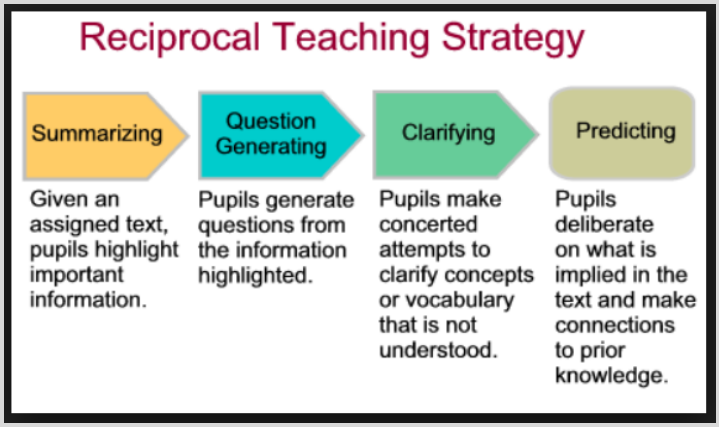
Research Based Instructional Strategies: The Jigsaw Method

The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing another of John Hattie's top ten: The Jigsaw Method. This strategy has an effect size of 1.20 and is near the top of the learning influences in Hattie's research. What is the Jigsaw Method? Teachers arrange students in groups. Each group member is assigned a different piece of information. Group members then join with members of other groups assigned the same piece of information to research or share ideas about that information. Eventually, students return to their original groups to try to "piece together" a clear picture of the topic at hand. Hence, Jigsaw!! It is a form of divide and conquer. Kids can master and be responsible for a small chunk of the learning content. Then kids learn from each other; they serve as the experts. This is all done through the facilitation of the teacher. This is a research-based cooperative learning technique invented and developed in the early 1970s by Elliot Aronson and his students at the University of Texas and at the University of California. Since 1971, thousands of classrooms have used jigsaw with great success. Are you using this in the Clearview classroom?? Let me know and I would enjoy observing this strategy in action with our Clippers!! For more info check out the link:

https://www.jigsaw.org/index.html#overview

1. Divide students into 5- or 6-person jigsaw groups
2. Appoint one student from each group as the leader
3. Divide the day's lesson into 5-6 segments
4. Assign each student to learn one segment
5. Give students time to read over their segment at least twice and become familiar with it.
6. Form temporary "expert groups" by having one student from each jigsaw group join other students assigned to the same segment.
7. Bring the students back into their jigsaw groups
8. Ask each student to present her or his segment to the group
9. Float from group to group, observing the process
10. At the end of the session, give a quiz on the material.

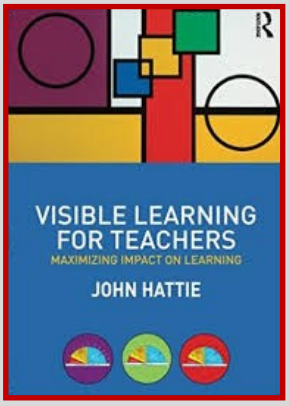
Research Based Instructional Strategies: Reciprocal Teaching



The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing another one of John Hattie's top strategies: Reciprocal Teaching. Reciprocal teaching ranked 0.74 which indicates that this teaching method is extremely effective in improving student achievement. Reciprocal teaching is a process developed by Palincsar & Brown (1984) where the role of "educator" is slowly passed from teacher to child, as students lead peer discussions and practice using four critical reading strategies: Predicting, Clarifying, Question generating, Summarizing. Because reciprocal teaching – also called peer learning – is a discussion technique, students develop strong oral language skills as they work together to improve their reading comprehension. The purpose of this technique is 1) To encourage students to think about what they are reading and their thought process. 2) To allow students to collaborate with each other to gain a better understanding of a text. 3) To teach students to be actively involved in monitoring their comprehension. 4) To teach students to ask questions during reading. There are similarities to the Jigsaw Method described last week. Examples in Clearview? Does our Guided Reading mirror elements of this strategy? Let me know. More …

https://strategiesforspecialinterventions.weebly.com/reciprocal-teaching.html

Research Based Instructional Strategies: Self Reporting Grades



The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing one of John Hattie's top strategies: Self Reporting Grades. Self reported grades comes out at the very top of all influences in Hattie's research! Effect size of 1.44! Children are the most accurate when predicting how they will perform. Hattie made a statement that if he could rewrite his popular book ***Visible Learning for Teachers*** again, he would re-name this learning strategy "Student Expectations" to express more accurately what this strategy involves. This involves the teacher finding out the student's expectations and motivating the learner to exceed those expectations. Hattie states that once a student has performed at a level that is beyond their own expectations, the student gains confidence in his or her learning ability. An example: Before an exam, ask students to write down what mark they expect to achieve. Use this information to engage the student to try to perform even better. The article below involves the direct studies that make connections to Hattie's findings for this stat. Think of the athletic coach that strives for players to achieve beyond expectations; they communicate a belief in the team-positive energy and confidence result!! This can happen in the classroom also!!

https://www.pearsoned.com/student-achievement-hattie/

Research Based Instructional Strategies: Response To Intervention

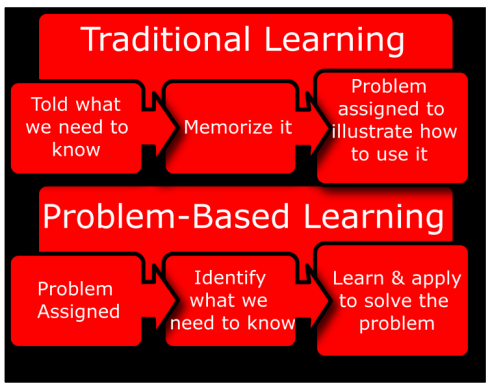
The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing one of John Hattie's top strategies: Response to Intervention or RTI. This comes in as one of the top influences at 1.29 effect size. This is why creating an RTI plan and structure is so important! This is a structured program designed to help at-risk students make enough progress and ideally achieve comparable results to their peers. There is plenty of literature and material to help schools use RTI, but basically, it involves screening students to see who is at risk, deciding whether supporting intervention will be given in class or out of class, using research-based teaching strategies within the chosen intervention setting, closely monitoring the progress, and adjusting the strategies being used when enough progress is not being made. While the program is designed for at-risk students, the principles behind it are the same advocated by John Hattie as being applicable for all students. Note – Response to Intervention (RTI) is increasingly being referred to as Multi-Tier System of Supports (MTSS). The two terms mean the same thing. (ASEBT 2017) As the CLS RTI committee continues to review, develop, and plan we will be sure to communicate out. For more check out this article regarding this Hattie top influence:

http://www.rtinetwork.org/learn

RTI #5 on Hattie List

Research Based Instructional Strategies: Problem Based Learning / PBL

The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing Problem Based Learning. PBL is a teaching method in which complex real-world problems are used as the vehicle to promote student learning of concepts and principles as opposed to direct presentation of facts and concepts. PBL promotes the development of critical thinking skills, problem-solving abilities, and communication skills. In traditional approach (right) students may memorize material but may not fully understand or be able to use it. Problem-based learning provides a structure for discovery that helps students internalize learning and leads to greater comprehension. Conducting a PBL activity? Let me know!



https://www.youtube.com/watch?v=RGoJIQYGpYk

Research Based Instructional Strategies: KWL Charts

The OIP calls for the use of research based instructional strategies. In this issue I'm reviewing KWL Charts. I have seen the use of KWL charts in Clearview on several visits to classrooms; I know they are in use. This is simply a review of this effective, research based instructional strategy. A KWL chart is a 3-column chart that incorporates the before, during, and after components of learning and/or reading. The letters KWL stand for "What we **Know,"** "What we **Want** to Know**,"** and "What we **Learned**." This is a great way to get students engaged in new topics. Students get to show off what they already know, they get to ask questions about what they want to learn more about, and they also get to demonstrate what they have learned at the end. The chart can serve as a great intro or anticipatory set for a new unit and even serve as an informal assessment to gauge what kids know about a topic. It can be used at any time but overall a KWL chart can connect lessons to prior and future learning!! The link below provides more info on KWL and examples for their use in classrooms -

https://caitlinpowers23.wordpress.com/2013/03/08/kwl-charts/

Research Based Instructional Strategies: Anticipation Guides

"How Many Insect Parts and Rodent Hairs are Allowed in Your Food?"

From www.SixWise.com

Agree:	Statement:	Disagree:
_____	Insect parts and rodent hairs are a rarity in our food.	_____
_____	We eat at least one pound of insects per year.	_____
_____	There are no guidelines regulating insect parts in food.	_____
_____	There are no contaminants in orange juice.	_____
_____	Rodent hairs in food are dangerous to your health.	_____

The OIP calls for the use of research based instructional strategies; **Anticipation Guides.** This is a strategy that is used before reading to activate students' prior knowledge and build curiosity about a new topic. Before reading a selection, students respond to several statements that challenge or support their preconceived ideas about key concepts in the text. Anticipation Guides engage all students in the exploration of new information by challenging them to critically think about what they know or think they know about a topic. In doing so, anticipation guides set a purpose to the reading, even for those students who initially may not be engaged by the topic. An example of one with science is shown - you can imagine how this guide could engage young learners!!

http://www.readingrockets.org/strategies/anticipation_guide

Research Based Instructional Strategies: Differentiated Instruction

20 Ideas for Differentiated Instruction Link Below...

The OIP calls for the use of research based instructional strategies. Differentiated instruction is defined as factoring students' individual learning styles and levels of readiness first before designing a lesson plan. Research shows this method benefits a wide range of students, from those with learning disabilities to those who are high ability. Differentiating instruction may mean teaching the same material to all students using a variety of instructional strategies, or it may require the teacher to deliver lessons at varying levels of difficulty based on the ability of each student. (Tomlinson) This is a popular concept and it can be challenging; however, the effectiveness is worth it for kids. This can be as simple as allowing a student to choose an activity that aligns to strengths, allowing a student to choose a writing topic aligned to their interests, or assigning cooperative groups according to student interests or ability levels. Regardless, lesson planning and classroom instruction that is differentiated takes into consideration the individual needs of learners in a larger group setting. Check the link below for a list of 20 strategies for use!! …

https://www.prodigygame.com/blog/differentiated-instruction-strategies-examples-download/

Research Based Instructional Strategies: Scaffolding Examples

The OIP calls for the use of research based instructional strategies. Scaffolding is a teaching method that enables a student to solve a problem, carry out a task, or achieve a goal through a gradual shedding of outside assistance. The teacher builds a "scaffold" of support eventually transferring responsibility over to the student who can demonstrate independence with the content. Hattie has this as a high yield strategy at 0.82. The link below reviews the examples listed right. What's the opposite of scaffolding? Saying to students, "Read this nine-page science article, write a detailed essay on the topic it explores, and turn it in by Wednesday." Yikes, no scaffolding.(Edutopia) For specific classroom ideas check link ...

https://www.edutopia.org/blog/scaffolding-lessons-six-strategies-rebecca-alber

- **SHOW AND TELL**
- **TAP INTO PRIOR KNOWLEDGE**
- **GIVE TIME TO TALK**
- **PRE-TEACH VOCABULARY**
- **USE VISUAL AIDS**

Research Based Instructional Strategies: Socratic Seminars

The OIP calls for the use of research based instructional strategies. A Socratic Seminar is a scholarly discussion of an essential question in which student opinions are shared, proven, refuted, and refined through dialogue with other students. It derives from Socrates belief in the power of asking questions. The most typical form is the fishbowl method where a class of 15+ form an inner circle and an outer circle. The inner circle engages in dialogue regarding a critical thinking question derived from the content; the outer circle observes, takes notes, and can pass notes to inner circle members to aid the discussion. Variety exists K-12; however, the overall concept is to dig deeper into content through a structured, inquiry based activity. Teacher prep is also key: organize questions, organize groups, set ground rules, and set expectations for speaking. Advantages also exist for students that may feel intimidated having to speak aloud; these students can participate by passing notes at first before having the comfort to speak in front of peers. Instead of just conducting a typical teacher in front of class discussion with rows of desks try a Socratic Seminar. Check out the link below for more...

http://www2.ncte.org/blog/2017/12/crafting-conducting-successful-socratic-seminar/

Research Based Instructional Strategies: Worksheet Remix

The OIP calls for the use of research based instructional strategies. As I visit many classrooms in Clearview the traditional worksheet or packet is used as a learning activity and resource often. Though I am not a fan of worksheet overload for kids I understand that many times it serves as a group activity or it serves as a resource for study. However, there are unique ideas that can "remix" your traditional worksheet activity for your students that can lead to increased engagement and fun. ThoughtCo.com has listed some of these ideas for teachers in the link below. It involves creative methods to put some life into your worksheet activity. Attempt to get away from the same old "find the answers and let's review aloud." Ideas include: Worksheet Cut-Up where kids actually take scissors and cut up the questions on a worksheet and groups identify roles to address the pile of cut-up questions. Another simple idea is to tell students to deliberately make a mistake on the worksheet then pass on to another student who's job it is search for the error. Skills identified can exists beyond DOK 1 and students can connect with worksheets differently.

https://www.thoughtco.com/making-a-worksheet-an-engaging-activity-3572980

Worksheet Remix Ideas:

1. Worksheet Cut-Up
2. Everybody Agrees
3. Lines of Communication
4. Making Mistakes
5. Classroom Rotation

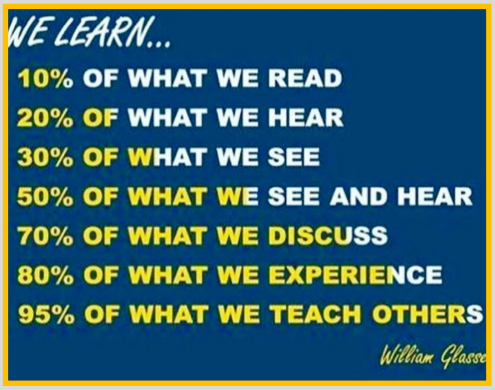
Research Based Instructional Strategies: Mistakes and Productive Struggle!

Incorporating guesswork into a lesson can significantly boost students' ability to recall information.

The OIP calls for the use of research based educational strategies. This week we will review the positive aspects of making mistakes …Huh?? Studies show that if students are allowed to guess and make mistakes while learning content then they are more likely to learn it long term once reinforced. Basically, there is value in Productive Struggle! What does this look like for teachers? Provide planned opportunities for students within lessons to guess, make mistakes then build off of that event. If mistakes are viewed as positive for learning instead of negative a more conductive educational environment is created. For example, place a math problem for a new concept on the board for kids. In groups, have them attempt to find the answer without any direct instruction. Then, check answers and actually celebrate getting close, celebrate the process kids used to attempt to get to the right answer. Once you provide direct instruction of the calculation research states students are more likely to internalize the info….

https://www.edutopia.org/article/how-mistakes-help-students-learn

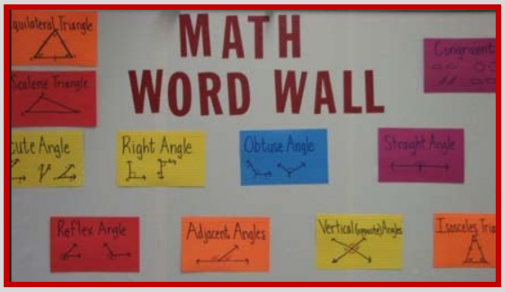
Research Based Instructional Strategies: Peer Teaching/Learning



The OIP calls for the use of research based educational strategies. This week we will review the positive aspects of Peer Teaching and Learning. This is a form of cooperative learning. At a recent DLT meeting I shared a powerful statement I heard at a conference, **"The one doing the talking is the one that is doing the learning."** If the teacher is the only one talking during a lesson research states that listening does not retain learned material most effectively. Allow students to teach the material to each other; the teacher facilitates the sharing. Kids can discuss concepts or find solutions to problems. It enables learners to take responsibility for reviewing, organizing, and consolidating existing knowledge; understanding its basic structure; filling in the gaps; finding additional meanings; and reformulating knowledge into new conceptual frameworks. Learning from peers increases learning for all students involved and they can take ownership for their learning.

https://www.opencolleges.edu.au/informed/features/peer-teaching/

Research Based Instructional Strategies: Word Walls K-12



The OIP calls for the use of research based educational strategies. This week we will review the strategy of creating and utilizing a Word Wall. It is more than just a wall with words on it! There are several advantages for using this strategy in kindergarten through high school. Elementary may use it for Site Words; a classroom visual with high frequency words that serves as a reinforcement for learning. In high school a word wall can be used to identify concepts or unit topics that commonly appear in instruction. Word walls can serve as a quick reference, serve as a connector to other words, serve to reinforce spelling, serve to reinforce vocabulary, and much more. Check the link below to identify all of the advantages, strategies, uses, and creativity that can be incorporated with Word Walls. Such an idea is not just for elementary but can positively serve secondary Clippers also!

https://www.weareteachers.com/what-is-a-word-wall/

Research Based Instructional Strategies: Closure Activities

The OIP calls for the use of research based educational strategies. This week we will review the strategy of Closure Activities. I heard at a conference that students are most "tuned-in" during the first ten minutes of class and the last ten minutes of class. The research suggested that this time in a learning segment is critical for key information. Anticipatory sets address the first ten minute window to hook or grab the learner. The last ten minutes can leave a lasting learning impression. What can be done to most effectively capture student learning at that time? Exit tickets are a popular activity that leads to feedback for the teacher and reflection for the student. However, many other creative ideas exists that can lead to an effective closure for a lesson as well. Closure is important and a strategy that should be planned. Check out the link attached from Edutopia covering 22 creative closure activities that can engage your learners, inform teachers, and lead to an effective closure for a lesson!!

https://www.edutopia.org/blog/22-powerful-closure-activities-todd-finley

22!

1. Snowstorm
2. High Five Hustle
3. Parent Hotline
4. Two Dollar Summary
5. Paper Slide
6. DJ Summary
7. Gallery Walk
8. Sequence It
9. Low Stakes Quizzes
10. Cover it
11. Question Stems
12. So What?
13. Dramatize It
14. Beat the Clock
15. Find a First Grade Student
16. Review It!
17. Cliff Notes Jr.
18. Students I Learned From the Most
19. Elevator Pitch
20. Simile Me
21. Exit Ticket Folder
22. Out the Door Activity

Research Based Instructional Strategies: Realia

The OIP calls for the use of research based educational strategies. This week we will review the strategy of **Realia**. Realia is everyday objects used in the classroom to enhance the students´ learning process in the target language. These authentic materials aid the teacher in delivering the most realistic and useful lessons possible. This could be as simple as the use of an apple to learn the word, the use of an actual, relic Plain Dealer newspaper the day after an historic event, or the use of real soil from the backyard to analyze in science (**John Szalay** did this!) This as opposed to looking at a picture or website. Realia allows students to make more meaningful connections to content through senses. Think of the Good Will Hunting movie where Robin Williams schools Matt Damon in his famous speech; basically you can read about things and learn but experiencing them first hand provides a much deeper learning experience. (…Maybe a stretch ha!) Using this strategy is most noted in English as a Second Language (ESL); however, it is certainly a strategy for all curricular areas. I've seen this plenty of times in Clearview! Check out the link below to learn more!! Using Realia in your classroom? Bringing in something interesting for your kids to see or experience? Let me know - I would love to observe and see the students reaction!!

https://www.slideshare.net/sebahaty/realia-12093389

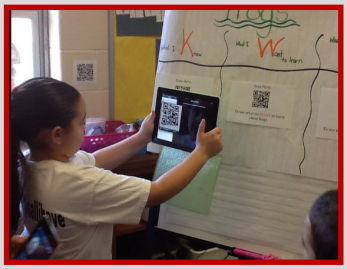
Research Based Instructional Strategies: Drawing to Enhance Memory

The OIP calls for the use of research based educational strategies. This week we will review the strategy of **Drawing to enhance memory.** A new study has identified that drawing is superior to activities such as reading or writing because it forces the person to process information in multiple ways: visually, kinesthetically, and semantically. **Jacob Ward, Jennifer Thurston, and Sydney Flask** probably can attest to this power! According to the study the benefits of drawing were not dependent on the students' level of artistic talent, suggesting that this strategy can work for all students, not just ones who are able to draw well. The reason this may be an effective tool for memory of concepts and content is that drawing is visual and also active. This was evident recently with **Dalene Clark** who conducted a Close Read activity which incorporated student drawings to explain text. Kids can construct a concept in a drawing that makes sense to them. There are several ways drawing can be incorporated in the classroom to enrich learning: Student Created Learning Aids; Interactive Notebooks; Data Visualization; Bookmaking; Assessing Learning Through Art. Check out the link below …

https://www.edutopia.org/article/science-drawing-and-memory

Research Based Instructional Strategies: QR Codes to Enhance Learning

The OIP calls for the use of research based educational strategies. This week we will review the strategy of Using QR Codes to Enhance Learning. A QR Code is very similar to a bar code. QR stands for Quick Response. The image consists of square dots in a unique configuration that provides information for the user. QR Codes can contain text, links to web sites, videos, files, and much more. QR Codes are safe to use in the classroom; Students only access what you tell them to via the QR Code. Why use it? They are less cumbersome than typing in a web address and they are fun for kids to access content. They allow students to explore content independently; students facilitate learning and access answers. Learning games can be created using QR codes that are easy to create and manipulate and they make it fun to explore. Check out the article that reviews this learning concept in much more detail by using the QR code top right!! Go to camera on your cell phone, hover over the code, and the article will pop up!! You can create these by a simple right click on your mouse!! Using QR codes? Send me an invite to class; I'd love it!



Research Based Instructional Strategies: STEM Activities

The OIP calls for the use of research based instructional strategies. In this issue of the Connection we will review STEM activities. STEM stands for Science, Technology, Engineering, and Math. Lately educators have added an "A" for Arts to form STEAM instead. The key component of STEM is integration. Instead of teaching disciplines in independent subject silos, lessons are well rounded, project and inquiry based, with a focus on interdisciplinary learning. STEM and STEAM align with the real world application of work. Think of a project manager for a construction company that must build a bridge; this requires many skills and knowledge in a variety of curricular areas. STEM projects are challenging and fun for learners! There are a variety of standards that can be covered depending on the project chosen. This is also a great example of 21st Century Skills being incorporated into learning activity: The 4 C's of Communication, Critical Thinking, Collaboration, and Creativity are involved. Check out the link below that gives MANY great ideas for STEM activities!! Try one of these and invite me to class!!

https://www.wabisabilearning.com/blog/36-stem-project-based-learning-activities

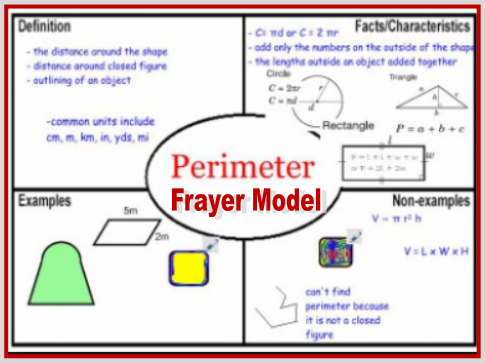
Research Based Instructional Strategies: Structured Academic Controversy

The OIP calls for the use of research based instructional strategies. In this issue of the Connection we will review Structured Academic Controversy. A Structured Academic Controversy (SAC) is a type of cooperative learning strategy in which small teams of students learn about a controversial issue from multiple perspectives. The structured academic controversy technique is designed to engage students in controversy and then guide them to seek consensus. This is different from debate where kids see that there is a winner/loser. In SAC the goal is to understand a viewpoint from multiple perspectives. Get students into groups then provide an big question. (examples listed right) Provide materials to groups favoring one side vs the other. Groups then present their position. Then they switch sides, receiving the material from the opposite side. In their new groups, students now formulate their argument for the opposite side. Last, the group attempts to reach consensus based on both perspectives. Check out the link for more!

https://serc.carleton.edu/sp/library/sac/index.html

- **Hamlet is a hero. Hamlet is a villain.**
- **America should be a melting pot. America should preserve individual cultures.**
- **Genetic engineering is destructive. Genetic engineering is creative.**
- **I won't ever use Calculus. Calculus is used every day.**
- **Reconstruction was a success. Reconstruction was a failure.**
- **Columbus is a courageous explorer. Columbus is a ruthless land thief.**

Research Based Instructional Strategies: Vocabulary



The OIP calls for the use of research based instructional strategies. In this issue we will review Academic Vocabulary. Understanding academic vocabulary helps students understand and comprehend texts across different content areas. It must be taught explicitly. Vocabulary is categorized into three tiers: (1) Basic vocabulary, including high-frequency words that usually are not multiple meaning. (2) Less familiar, yet useful vocabulary found in written text; these words are more precise or subtle forms of familiar words and include descriptive and multiple meaning words. (3) Domain specific, as called in the Common Core, and refers to words that carry specific concepts of the subject matter. They have low frequency use and are limited to specific knowledge domains - Isosceles in math or Mitosis in science. Research suggests that vocabulary instruction should include the following components: definitional and contextual information about a word; multiple exposures to a word in different contexts; and encouragement of students' active participation in their own learning of the new words. Creative strategies exist when teaching vocabulary; check out these 15 in the link to the right.. **http://learningtasks.weebly.com/vocabulary-strategies.html**

Research Based Instructional Strategies: Writing Across the Curriculum

The OIP calls for the use of research based instructional strategies. In this issue we will review Writing Across the Curriculum. WAC is designed to boost student critical thinking skills by requiring them to write in all of their classes, not just in language arts. Studies have shown that writing helps boost student achievement across the board because it actively engages children. It requires them to take in information, organize their thoughts, sort through all of the information they've received and then process it. Having just drafted a Clearview Literacy Plan an expectation is to connect writing expectations and common language across curricular areas. This will require TBTs and the BLT to share rubrics and expectations. The idea is to include writing as a form of learning activity and assessment in math, social studies, science, etc… with students hearing common writing expectations for doing so! Many ideas exist that teachers outside of ELA can incorporate: Journal writing, quick-writes, think-pair-share, self-assessment, note taking, are some examples. Learn more WAC here…

https://www.weareteachers.com/writing-across-the-curriculum-what-how-and-why/

Why WAC?

- **Writing aids retention.**
- **Writing increases the depth of knowledge on a subject**
- **Writing develops critical thinking skills.**
- **Writing promotes independent thinking.**

Research Based Instructional Strategies: Role Playing, Scenarios, and Simulations

The OIP calls for the use of research based instructional strategies. In this issue we will review Role Playing, Scenarios, and Simulations. Role playing assignments adopt and act out the role of characters in particular situations. They may take on the personalities, motivation, backgrounds, mannerisms, and behaviors of people different from themselves. A scenario is simply a situation used to establish a context for learning. From a simple description of a setting to a full-blown case study, students are presented with information necessary to take on a role or solve a problem. Simulations help students apply their skills to "real life" situations by providing an environment to manipulate variables, examine relationships, and make decisions. This type of assignment is generally used after initial instruction as part of application, review, or remediation. These are opportunities to provide unique learning experiences for kids. By acting out and physically interacting with the course content kids are more likely to understand the learning objective but they also provide an opportunity for fun!! **Miles Jones** conducted a simulation of the D-Day invasion last week. Kids acted out the tactics involved instead of just reading about it or listening to a lecture. These learning activities call for planning and organization. The activity must have structure and the objective must be clear. Learn more in the link below..

https://eduscapes.com/distance/course_activities/simulations.htm