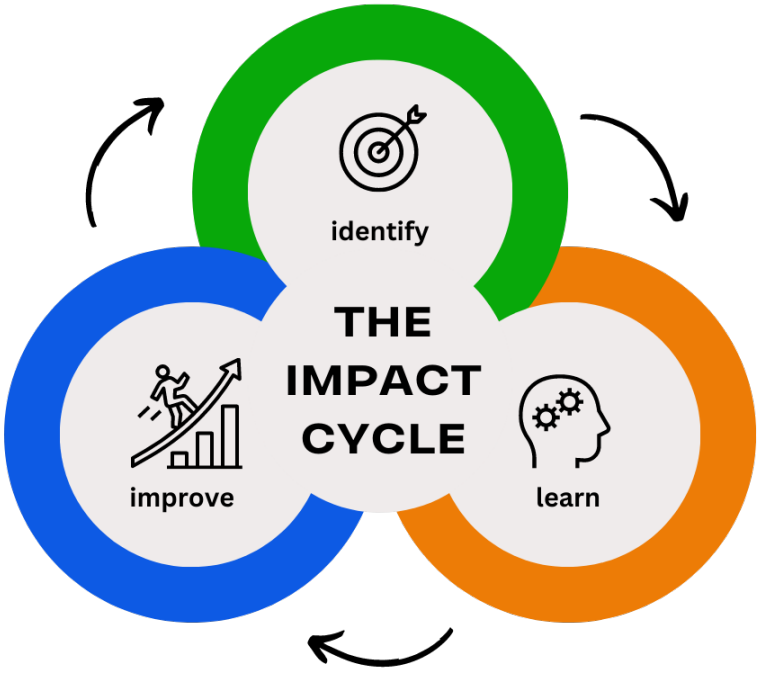
INSTRUCTIONAL FRAMEWORK PLAYBOOK

Converse County School District #1



Translating research into practice.

Working together to achieve excellence.

Framework updated: 12/2023

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Change log

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1	12/13/23	Framework deployed	

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1. *Clear learning goals are posted and/or communicated; the lesson directly correlates to the learning target; students know what is expected of them.*

1a. Clear learning goals are posted and/or communicated

Learning goals posted and discussed

Effect Size

Learning Goals vs. No Goals	**0.68**(Hattie)
Teacher Clarity	**0.75**(Hattie)

Definition

A Learning Goal (also known as a learning intention or lesson objective) is a statement of what students will know or be able to do. Learning goals are related to levels on the proficiency scale and/or instructional intentions.

Example

"I can..."; "Students will be able to (SWBAT)..." Visible Learning for Literacy (pg. 29)

Sample Learning Intentions

Resources

FAQ's Learning Goals vs. Targets

References

Fisher, D., Frey, N., Amador, O., & Assof, J. (2018). *The Teacher Clarity Playbook, Grades K-12: A hands-on guide to creating learning intentions and success criteria for effective instruction.* Corwin.

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Heflebower, T., Hoegh, J. K., Warrick, P. B., & Flygare, J. (2019). *A teacher's guide to standards-based learning.* Bloomington, IN: Marzano Research. https://eric.ed.gov/?id=ED591876

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1. *Clear learning goals are posted and/or communicated; the lesson directly correlates to the learning target; students know what is expected of them.*

1b. Lesson directly correlates to the learning target

Backwards unit planning

Effect Size

Teacher Clarity	**0.75**(Hattie)
Planning and Prediction	**0.76**(Hattie)

Definition

A Learning Target (standard) is a score of 3.0 on a proficiency scale that defines the target content that teachers expect all students to know and be able to do.

Example

The teacher plans with the end in mind. Each lesson works toward the learning target. Lessons build on one another as they progress toward the learning target. Teachers unit plan, rather than lesson plan, with the PLC questions as guidance.

Resources

Understanding By Design, Vanderbilt University

References

Bowen, R. S. (2017). *Understanding by Design.* Vanderbilt University Center for Teaching. Retrieved May 22, 2023 from https://cft.vanderbilt.edu/understanding-by-design/

Fisher, D., Frey, N., Amador, O., & Assof, J. (2018). *The Teacher Clarity Playbook, Grades K-12: A hands-on guide to creating learning intentions and success criteria for effective instruction.* Corwin.

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1. *Clear learning goals are posted and/or communicated; the lesson directly correlates to the learning target; students know what is expected of them.*

1c. Students know what is expected of them

Proficiency scales	Rubrics

Effect Size

Success Criteria	**0.88**(VL)
Self-judgement and Reflection	**0.75**(VL)

Definition

Success criteria are the standards by which the project/task will be judged at the end to decide whether or not it has been successful. They are often brief, co-constructed with students, aim to remind students of those aspects on which they need to focus, and can relate to the surface (content, ideas) and deep (relations, transfer) learnings from the lesson(s).

Example

Students know what they are learning, why, and what success looks like.
Students can explain what is expected of them and what success will look like.
Teachers know if students are learning and what they need to.

Resources

NWEA article

References

Corwin Visible Learning Plus. (n.d.). *Self-judgment and reflection.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/self-judgement_and_reflection

Corwin Visible Learning Plus. (n.d.). *Success criteria.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/success_criteria

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Rhodes, K. (2022, August 16). *What you need to know when establishing success criteria in the classroom.* NWEA. https://www.nwea.org/blog/2022/what-you-need-to-know-when-establishing-success-criteria-in-the-classroom/

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2. *Students know whether they will be successful or not on assignments; there is evidence that students track their own progress on learning.*

2a. Students know whether they will be successful or not on assignments

Proficiency scales	Rubrics

Effect Size

Appropriately Challenging Goals	**0.59**(Hattie)
Self-judgement and Reflection	**0.75**(VL)

Definition

A proficiency scale describes the progression of knowledge or skill. It is similar to a rubric, but usually more general rather than focused on one specific task. Scales should have the learning targets embedded, and should be reviewed and explained to students. Proficiency scales help build consistency in scoring and clearly articulate learning goals for students. Eventually, the scales are created with student-friendly language.

"Students are confident about their chances of meeting the criteria on an assignment"- WYCC Instructional Framework.

Example

As part of their PLC, a team of teachers may create a proficiency scale for an upcoming topic. Essentially, the scale is a continuum for the learning targets to be addressed. The proficiency scale can be used by the teacher as a guide for planning instruction. Then, at the beginning of the unit, the scale is introduced to students. The teacher may ask the students to help create student-friendly language for the targets, so it can be referred back to throughout the unit. The students understand each target and know what they are working toward and where they need to make improvements.

Resources

Template for Creating Proficiency Scales
Sample scale format and topics
Checklist for Using Proficiency Scales

References

Checklist for using proficiency scales in the classroom. (2020). Marzano Resources. https://soltreemrls3.s3-us-west-2.amazonaws.com/marzanoresources.com/media/documents/reproducibles/HDUPSC/checklistsforusingproficiencyscalesintheclassroom.pdf

Corwin Visible Learning Plus. (n.d.). *Self-judgment and reflection.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/self-judgement_and_reflection

A handbook for developing and using proficiency scales in the classroom. (2020). Marzano Resources. https://soltreemrls3.s3-us-west-2.amazonaws.com/marzanoresources.com/media/documents/reproducibles/HDUPSC/proficiencyscalewithsampleactivities.pdf

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Marzano, R. J. (2017). *The new art and science of teaching.* Solution Tree Press.

Marzano Academies. (n.d.). *Performance scales.* Retrieved November 29, 2023, from https://marzanoacademies.org/performance-scales/

WYCC Instructional Framework. (n.d.). *Impact Walk Rubric.* Retrieved November 29, 2023, from https://drive.google.com/file/d/1Yy_65jH8RZnzF6on4p4WwNib0tV-aD1Y/view?usp=sharing

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2. *Students know whether they will be successful or not on assignments; there is evidence that students track their own progress on learning.*

2b. There is evidence that students track their own progress on learning

Student-friendly scales and rubrics	Student portfolios

Effect Size

Self-reported Grades	**1.33**(Hattie)
Self-judgement and Reflection	**0.75**(VL)

Definition

Proficiency scales and rubrics are translated into student-friendly language and the teacher has taught the students how to use the tool. Students refer to the scoring tool before, during, and after assignments to reflect on their progress. Students have access to scales and rubrics in order to self-assess and track growth over time.

"Students can verbalize their progress toward meeting the criteria; students are aware of what they know and how they are likely to perform."- WYCC Instructional Framework

Example

After becoming very familiar with the proficiency scale for a specific unit, or topic, students score themselves on the tool at multiple times in their learning. Students use the tool as they are working to determine what they need to do on the assignment. They refer back to the scale as they revise their work. After completing the task, students self-assess on a copy of the scale.

Students have a place to keep their self-assessed and teacher-assessed proficiency scales in order to compare and track their growth over time.

Resources

Links to student-friendly sample scales
Why Student Data Should Be Students' Data

References

Corwin Visible Learning Plus. (n.d.). *Self-judgement and reflection.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/self-judgement_and_reflection

Fisher, D., Frey, N., Amador, O., & Assof, J. (2018). *The Teacher Clarity Playbook, Grades K-12: A hands-on guide to creating learning intentions and success criteria for effective instruction.* Corwin.

Hattie Ranking: 252 Influences And Effect Sizes Related To Student Achievement. (2018). Visible Learning. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

Li, D. (2017, December 11). *Why student data should be students' data.* Edutopia. https://www.edutopia.org/article/why-student-data-should-be-students-data/

Marzano, R. J. (2017). *The new art and science of teaching.* Solution Tree Press.

NDSBL. (n.d.).*English Language Arts. North Dakota Standards-Based Learning.* Retrieved November 29, 2023, from https://ndsbl.org/resources/

WYCC Instructional Framework. (n.d.). *Impact Walk Rubric.* https://drive.google.com/file/d/1Yy_65jH8RZnzF6on4p4WwNib0tV-aD1Y/view?usp=sharing

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3. *Teacher provides informative feedback to students on what they have done correctly and how they can improve and make progress toward meeting specific criteria.*

3a. Teacher provides informative feedback to students on what they have done correctly

Rubrics	Proficiency scales

Effect Size

Feedback	**0.62**(VL)
Feedback (Reinforcement and Cues)	**0.92**(VL)

Definition

Feedback is essential for student improvement and growth. Feedback is how teachers share information with students in order for students to know what they should be learning about specific topics and their current level of learning on those topics. Feedback is most effective when it is timely and specific. Feedback should vary in terms of timing, amount, mode, and audience. Rubrics and proficiency scales are tools used to provide feedback to students specific to the learning expectations and a student's current progress toward those expectations.

Example

Teachers can provide scales and rubrics to help students identify the qualities of work.
Students can self-track their learning progress and use data binders.

- 3rd-grade ELA proficiency scale (Standard RL.3.2: Central Message)
- 3rd-grade ELA proficiency scale (Standard RL.3.2: Central Message student-friendly)
- 6th-grade ELA proficiency scale (Standard RL.6.2: Theme/Central Idea)
- 9th-grade ELA proficiency scale (Standard RI.9-10.1: Cite textual evidence)
- 8th-grade Math proficiency scale (Standard 8.EE.8: Systems of Equations)
- High School Geometry proficiency scale (Standard HSG-CO.9)

Resources

The Teacher Success Criteria Playbook, Module 13, pp. 176 to 188 (focus on 181-182).
Learning Sciences Article: 5 Practical Ideas
How to Give Feedback
What teachers really want when it comes to feedback
CCSD#1 Teaching & Learning site

References

Almarode, T., Fisher, D., Thunder, K., & Frey, N. (2021). *The success criteria playbook: A hands-on guide to making learning visible and measurable.* Corwin.

Corwin Visible Learning Plus. (n.d.). *Feedback.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/feedback

Corwin Visible Learning Plus. (n.d.) *Feedback (reinforcement and cues).* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/feedback_(reinforcement_and_cues)

Guskey, T., & Link, L. (2022, April 1). *What teachers really want when it comes to feedback.* ASCD. https://www.ascd.org/el/articles/what-teachers-really-want-when-it-comes-to-feedback

Teaching + Learning Lab. (n.d.). *How to give feedback.* Retrieved November 30, 2023, from https://tll.mit.edu/teaching-resources/assess-learning/how-to-give-feedback/

William, D. (2017, November 16). *5 Practical techniques for embedding formative assessment.* Learning Sciences International. https://www.learningsciences.com/blog/embedding-formative-assessment/

Wiliam, D.; & Leahy, S. (2015). *Embedding formative assessment: Practical techniques for K-12 classrooms.* Learning Sciences International.

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3. *Teacher provides informative feedback to students on what they have done correctly and how they can improve and make progress toward meeting specific criteria.*

3b. Teacher provides informative feedback to students on how they can improve and make progress toward meeting specific criteria

Rubrics	Proficiency scales

Effect Size

Feedback	**0.62**(VL)
Feedback (Reinforcement and Cues)	**0.92**(VL)
Success Criteria	**0.88**(VL)

Definition

Informative feedback provides students with knowledge of how they are progressing toward proficiency, success criteria, and/or the learning target. Proficiency scales and rubrics are particularly powerful feedback methods to provide students with information on how to progress in their learning. A scale shows a general progression of knowledge or skills, while a rubric is usually more specific to one task.

Example

Teachers can provide feedback to students in a variety of modes, including one-on-one conferencing, verbal, written, or visual demonstration, or all-student response systems (Pear Deck, exit tickets, mini-erase boards, etc.).

Resources

The Teacher Success Criteria Playbook, Module 13, pp. 176 to 188 (focus on 181-182).
Learning Sciences Article: 5 Practical Techniques
How to Give Feedback
What teachers really want when it comes to feedback
11th grade ELA proficiency scale (standard W.11-12.2: writing informative/explanatory texts)
ELA Grade 11 Informative Research Essay Rubric

References

Almarode, T., Fisher, D., Thunder, K., & Frey, N. (2021). *The success criteria playbook: A hands-on guide to making learning visible and measurable.* Corwin.

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4. *Teacher is highly organized in the presentation of the subject matter; understands content; speaks powerfully and passionately, avoiding verbal hesitancies and fillers; reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums); manages classroom behavior; cares about students and their learning progress.*

4a. Teacher is highly organized in the presentation of the subject matter

Planning for content and process

Effect Size

Teacher Credibility	**1.09**(VL)
Teacher Clarity	**0.75**(Hattie)

Definition

The teacher plans for each unit and lesson, considering the needs of the students and the standards for the content. The teacher pre-plans various levels of questions for class lessons and activities. The teacher organizes content in a student-friendly way.

Example

Teachers plan for lessons to include a progression of learning that may use the Cha Chas (chunk, chew, check change) and/or gradual release (I Do, We Do, You Do).

Resources

Teacher Credibility and Collective Efficacy Strategies
Five Essential Phases for an Instructional Process
I Do, We Do, You Do
Instructional Cha-Chas by LeAnn Nickelsen
Chunk, Chew, Check, Change lesson planning template

References

Corwin Visible Learning Plus. (n.d.). *Teacher credibility.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/teacher_credibility

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Kentucky Department of Education. (n.d.). *Direct/Explicit Instruction: Five Essential Phases for an Instructional Process*. Retrieved November 29, 2023, from https://education.ky.gov/school/stratclsgap/instruction/Documents/Direct%20Explicit%20Instruction%20Model.pdf

Nickelsen, L. (n.d.). *Double the Speed of Learning with the Formative Assessment Process: Instructional Cha-Cha's.* Maximize Learning, Inc. Retrieved November 29, 2023, from https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3Aa6a1e84a-f231-350d-8526-bd75813273e0

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4. *Teacher is highly organized in the presentation of the subject matter; understands content; speaks powerfully and passionately, avoiding verbal hesitancies and fillers; reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums); manages classroom behavior; cares about students and their learning progress.*

4b. Teacher understands content

Planning for content and process

Effect Size

Teacher Credibility	**1.09**(VL)
Teacher Clarity	**0.75**(Hattie)

Definition

The teacher has unpacked the standards to understand the skill(s) and content. Teachers can differentiate the verbs within the standard to meet learners of all levels. The teacher appropriately scaffolds the learning progression to anticipate and plan for student difficulties and ways to extend student thinking. Students view the teacher as competent in their delivery and structure of lessons. Students believe their teacher is competent in providing them with what they need in order to learn.

Example

After collaboratively developing a unit plan with colleagues, the teacher prepares for the individual lessons they will teach. The planning process includes beginning with the standards and objectives to be addressed, as well as the sequence of the lesson within the larger unit. *How does this lesson build on yesterday's? How does today's lesson prepare students for tomorrow?* The teacher prereads the text, questions, and tasks included in the lesson. The sequence of questions to be asked is planned and intentional. The teacher considers where challenges are likely to arise and plans for additional supports. After the lesson, the teacher reflects on the process and makes adjustments to the next lessons based on student needs.

If using a scripted curriculum, the teacher has read and planned for the lesson ahead of time. The planning includes prereading all text and questions and considers the specific needs of the class. The pacing is intentional and adjusted based on student needs for reteaching or acceleration. The teacher knows how each lesson fits within the greater unit to achieve the objectives.

Resources

Teacher Credibility and Collective Efficacy Strategies
Introducing Competence
The New Art and Science of Teaching, p. 61
Guiding Questions for Planning a Unit or Lesson
Stronge Lesson Planning Template

References

Corwin. (2020). *Introducing competence* [Video]. https://players.brightcove.net/2680129630001/rJenILPQx_default/index.html?videoId=ref:V881290&secureConnections=true&secureHTMLConnections=true&autoStart=false

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4. *Teacher is highly organized in the presentation of the subject matter; understands content; speaks powerfully and passionately, avoiding verbal hesitancies and fillers; reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums); manages classroom behavior; cares about students and their learning progress.*

4c. Teacher speaks powerfully and passionately, avoiding verbal hesitancies and fillers

Planning for content and process

Effect Size

Teaching Communication Skills and Strategies **0.42**(Hattie)

Definition

The teacher has passion for student learning and excitement about each day's lesson. Teachers are energetic and vibrant, seem to enjoy teaching and learning, are passionate about education, and exude self-confidence. Learning is relevant and engaging for students.

Example

Resources

Teacher Credibility and Collective Efficacy Strategies
Introducing Dynamism
Immediacy in the Classroom
Effective Stories

References

Corwin. (2020). *Introducing dynamism* [Video]. https://players.brightcove.net/268012963001/rJenILPQx_default/index.html?videoId=ref:V881291&secureConnections=true&secureHTMLConnections=true&autoStart=false

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4. *Teacher is highly organized in the presentation of the subject matter; understands content; speaks powerfully and passionately, avoiding verbal hesitancies and fillers; reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums); manages classroom behavior; cares about students and their learning progress.*

4d. Teacher reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums)

Organized physical layout of the classroom

Effect Size
Strong Classroom Cohesion **0.66**(VL)

Definition

The physical layout of the classroom can impact learning by contributing to a positive environment, ease of movement and comfort within the classroom, and opportunities for student voice and choice.

When planning the physical organization of the classroom, teachers should consider:

- placement of students' desks
- placement of teacher desks and/or table
- space for group work and student collaboration
- involving students in the design

The teacher checks in with students throughout the year and makes adjustments based on that feedback. The teacher is thoughtful during each lesson about their own placement and movement.

Example

The teacher can check their movement within the classroom by placing a sticky note on each wall. Each time the teacher walks by the sticky note, mark a tally. By the end of the day, the teacher can reflect on movement patterns and make changes accordingly.

Resources

Teacher Credibility and Collective Efficacy Strategies
Immediacy in the Classroom
Planning Guide for Occupying the Whole Room Physically and Visually
Proximity Control

References

Corwin Visible Learning Plus. (n.d.). *Strong classroom cohesion.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/strong_classroom_cohesion

Marzano, R. J. (2017). *The new art and science of teaching.* Solution Tree Press.

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4. *Teacher is highly organized in the presentation of the subject matter; understands content; speaks powerfully and passionately, avoiding verbal hesitancies and fillers; reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums); manages classroom behavior; cares about students and their learning progress.*

4e. Teacher manages classroom behavior

Demonstrate *withitness*

Effect Size

Strong Classroom Cohesion **0.66**(VL)

Definition

"Basically, *withitness* means that a teacher is alert and aware of what is occurring in the classroom at all times" (Marzano, 2017, p.83). Discipline is concerned with students' behavior; procedures are concerned with how things are done. Teachers can teach procedures to students by teaching (e.g., state, explain, model, and demonstrating the procedure); rehearsing (e.g., students rehearse and practice the procedure under your supervision); and reinforcing (e.g., reteach, rehearse, practice, and reinforce the procedure until it becomes a habit - a routine). An effective teacher scans the room, making note of when students are not engaged and taking overt action to re-engage them.

Example

The teacher uses a variety of methods to provide immediate feedback to students regarding classroom behavior. The students all know the classroom expectations. When the expectations are being met, behaviors are affirmed, and when they are not met, they are corrected. The teacher uses verbal and nonverbal cues to both affirm and redirect. The classroom has a system of interdependence, allowing for students to be accountable to one another and community-based.

The teacher is intentional in designing classroom structures and procedures, including gestures, graphics, physical layout, displaying student work, visual cues, placement of the teacher's desk, etc.

Resources

Teacher Credibility and Collective Efficacy Strategies
Classroom Management- Harry Wong
How to Teach Procedures

References

Corwin Visible Learning Plus. (n.d.). *Strong classroom cohesion*. Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/strong_classroom_cohesion

Marzano, R. J. (2017). *The new art and science of teaching.* Solution Tree Press.

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4. *Teacher is highly organized in the presentation of the subject matter; understands content; speaks powerfully and passionately, avoiding verbal hesitancies and fillers; reduces distance between teacher and students by moving away from barriers (e.g., desk, podiums); manages classroom behavior; cares about students and their learning progress.*

4f. Teacher cares about students and their learning progress

Verbal and nonverbal behaviors that demonstrate affection for and understanding of students

Effect Size

Strong Classroom Cohesion	**0.66**(VL)
Teacher-Student Relationships	**0.53**(Hattie)
Positive Self-concept	**0.51**(VL)

Definition

An effective teacher uses verbal and nonverbal behaviors that indicate affection for students. Teachers who smile, joke, and show enthusiasm positively affect student engagement and enthusiasm. Students are encouraged to take positive risks, be themselves, and support each other.

Example

The teacher may greet students are the classroom door, hold informal conferences, attend after-school functions, greet student by name outside of school, getting-to-know student activities, give students special responsibilities or leadership roles in the classroom, scheduling interaction, creating a photo bulletin board, using physical behaviors, and using humor.

Resources

Teacher Credibility and Collective Efficacy Strategies
Building Deeper Relationships with Students
Rita Pierson - Relationships

References

Hattie Ranking: 252 Influences And Effect Sizes Related To Student Achievement. (2018). Visible Learning. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

Nguyen, H. (2021, October 14). *The 'how' of building deeper relationships with students.* Edutopia. https://www.edutopia.org/article/how-building-deeper-relationships-students/

Video Vault. (2013). *Rita Pierson Relationships* [Video]. YouTube. https://www.youtube.com/watch?v=fU2gRR7MBIw

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5. *Students take advantage of multiple opportunities to demonstrate learning; instructional strategies focus on higher-order thinking, critical thinking, real-world application, and problem-solving.*

5a. Students take advantage of multiple opportunities to demonstrate learning

Backwards planning	Formative checks (multiple and varied)	Teacher targeted feedback	Choices in assessment

Effect Size

Feedback	**0.70**(Hattie)
Formative Evaluation	**0.48**(Hattie)
Scaffolding	**0.82**(Hattie)

Definition

The teacher uses backward planning to first identify the summative assessment. The teacher then scaffolds the learning to include multiple, varied formative checks throughout the unit to provide multiple opportunities for students to demonstrate their learning. After each formative check, the teacher provides targeted feedback that helps students grow toward the learning target.

Example

- Teachers begin with end in mind when planning lessons.
- Choice boards w/ opportunities for students to demonstrate knowledge.
- Formative Exit/entry tickets or bell-ringers.
- Teacher provides oral or written feedback to grow student learning.
- Provide opportunities for students to revise/correct based on feedback.

Resources

Backwards Design: The Basics

References

Gonzalez, J. (2020, June 21). *Backwards design: The basics.* Cult of Pedagogy. https://www.cultofpedagogy.com/backward-design-basics/

Hattie Ranking: 252 Influences And Effect Sizes Related To Student Achievement. (2018). Visible Learning. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

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5. *Students take advantage of multiple opportunities to demonstrate learning; instructional strategies focus on higher-order thinking, critical thinking, real-world application, and problem-solving.*

5b. Instructional strategies focus on higher-order thinking, critical thinking, real-world application, and problem-solving

Problem-solving teaching | **Project-based teaching**

Effect Size

Transfer Strategies	**0.86**(Hattie)
Problem-Solving Teaching	**0.68**(Hattie)
Cognitive Task Analysis	**1.29**(Hattie)

Definition

Cognitively complex tasks require students to question their current knowledge and adjust it to accommodate their findings. Projects involving investigating or solving a problem increase students' understanding of principles and application of knowledge. As students transfer knowledge and skills to new contexts, they are able to develop and demonstrate mastery by justifying their thinking and ideas to produce a final product. (Marzano, *The Handbook for the New Art & Science of Teaching*, 2019, pp. 93-100)

Example

The teacher creates cognitively complex grade-level tasks where students apply current knowledge to investigate or solve a problem. As students apply their knowledge, their learning changes with the transfer of learning. Students develop a deeper understanding of the content as they apply their knowledge to new and different situations.

The teacher plans activities and questions that address all four DOK levels.

Resources

Webb's Depth of Knowledge Wheel
What is Problem-based Learning?

References

Hattie Ranking: 252 Influences And Effect Sizes Related To Student Achievement. (2018). Visible Learning. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

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6. *Students actively engage with the content; new information is linked to prior knowledge; students take notes, use manipulatives, and use graphic organizers; students are asked to recall information; analogies are used.*

6a. Students actively engage with the content

Problem-solving teaching	**Questioning to build curiosity**	**Build and maintain relationships** (student to teacher, teacher to content, students to content)	**PIES (Kagan)**

Effect Size

Effort Management	**0.77**(VL)
Deep Motivation and Approach	**0.57**(VL)
Problem-Solving Teaching	**0.68**(Hattie)

Definition

Marzano (2017) divides engagement into four components: paying attention, being energized, being intrigued, and being inspired. For students to actively engage with content, the teacher can employ various instructional strategies.

Examples

A teacher plans intentionally for their current students. They take into consideration their students' interests, background knowledge, current skills, and cooperative preferences. During the lesson, the teacher asks questions that build curiosity, uses structured collaboration, and monitors students' interactions with the content.

Students are explicitly taught how to self-monitor their engagement and re-engage when needed. Students are given opportunities to discuss their engagement strategies and support each other in building stamina.

Marzano (2017) identifies the following elements as engagement strategies:

- Noticing & Reacting When Students Are Not Engaged
- Increasing Response Rates
- Using Physical Movement
- Maintaining a Lively Pace
- Demonstrating Intensity & Enthusiasm
- Presenting Unusual Information
- Using Friendly Controversy
- Using Academic Games
- Providing Opportunities for Students to Talk About Themselves
- Motivating & Inspiring Students

Kagan's PIES is the acronym for the 4 basic principles of all Kagan structures.

- Positive interdependence
- Individual accountability
- Equal participation
- Simultaneous interaction

Resources

The New Art & Science of Teaching, Marzano (2017), Chapter 7- Engagement Strategies
Marzano Engaging with Comprehension-Related Reading Strategies
Kagan's Critical Questions for PIES

References

Corwin Visible Learning Plus. (n.d.). *Deep motivation and approach.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/deep_motivation_and_approach

Corwin Visible Learning Plus. (n.d.). *Effort management.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/effort_management

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Kagan, S. (2005). *Structures optimize engagement*. Kagan Online Magazine. https://www.kaganonline.com/free_articles/dr_spencer_kagan/293/Structures-Optimize-Engagement

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6. *Students actively engage with the content; new information is linked to prior knowledge; students take notes, use manipulatives, and use graphic organizers; students are asked to recall information; analogies are used.*

6b. New information is linked to prior knowledge

Preview strategies | **Overt linkages**

Effect Size

Strategy to Integrate with Prior Knowledge	**0.93**(Hattie)
Transfer Strategies	**0.86**(Hattie)

Definition

Students should be continually integrating new knowledge with prior knowledge in order to deepen and revise their understanding. Any time new information is presented, it should be linked to the student's prior knowledge (Marzano, 2017). Teachers can create these connections through activities that activate background knowledge or through overt language.

Examples

Activities to Activate Background Knowledge and Prior Learning:

- Anticipation Guides
- What do we already know? Think-Pair-Share

Student created summaries of previous lessons/units

Overt Linkages:

- "Today we are going to build upon what we started yesterday by..."
- "Last week we learned _____. Today, we are going to focus on _____ because _____."
- "Now that you understand _____, it is time for us to expand on that with _____."

Resources

The Whys & Hows of Activating Student Background Knowledge

References

Corwin. (n.d.). *Visible Learning Meta X*. Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/

Ferlazzo, L. (2020, June 15). *The whys & hows of activating students' background knowledge*. Education Week. https://www.edweek.org/teaching-learning/opinion-the-whys-hows-of-activating-students-background-knowledge/2020/06

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6. *Students actively engage with the content; new information is linked to prior knowledge; students take notes, use manipulatives, and use graphic organizers; students are asked to recall information; analogies are used.*

6c. Students take notes, use manipulatives, use graphic organizers

Linguistic and nonlinguistic representations

Effect Size

Note-taking	**0.50**(Hattie)
Outlining and Summarizing	**0.71**(VL)
Concept Mapping	**0.64**(VL)

Definition

Students create a representation of the content that is meaningful to them. Students show their understanding of the content through some form of encoding (i.e., notes, drawings, graphic organizers, etc.).

Examples

- Thinking Maps
- Graphic Organizers
- Academic Notebooks
- Outlines

Resources

Know Your Terms
Thinking Maps
Using Interactive Notebooks with ELLs

References

Corwin Visible Learning Plus. (n.d.). *Concept mapping.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/concept_mapping

Corwin Visible Learning Plus. (n.d.). *Outlining and summarizing.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/outlining_and_summarizing

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6. *Students actively engage with the content; new information is linked to prior knowledge; students take notes, use manipulatives, and use graphic organizers; students are asked to recall information; analogies are used.*

6d. Students are asked to recall information

Structured practice

Effect Size

Rehearsal and Memorization	**0.73**(Hattie)
Deliberate Practice	**0.79**(Hattie)
Mnemonics	**0.76**(Hattie)
Mastery Learning	**0.57**(Hattie)

Definition

Students need time to practice skills, strategies, and processes (Marzano, 2017). The teacher plans for meaningful practice time that allows students to build confidence, develop fluency, and ask questions. The teacher asks students to recall information during this time. The teacher uses engagement strategies to ensure the students actively participate in the recall.

Examples

- Math fluency practice
- Kahoot
- Class-created mnemonic
- Jeopardy Game

Resources

Teaching with Mnemonics
Kahoot!
Jeopardy Lab

References

Bafile, C. (2005*). You must remember this: Teaching with mnemonics.* Education World. https://www.educationworld.com/a_curr/profdev/profdev117.shtml

Hattie Ranking: 252 Influences And Effect Sizes Related To Student Achievement. (2018). Visible Learning. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/

Jeopardy Labs. (n.d.) *Jeopardy Labs.* Retrieved November 29, 2023, from https://jeopardylabs.com/

Kahoot! (n.d.). *Kahoot*. Retrieved November 29, 2023, from https://kahoot.com/

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6. *Students actively engage with the content; new information is linked to prior knowledge; students take notes, use manipulatives, and use graphic organizers; students are asked to recall information; analogies are used.*

6e. Analogies are used

Examining similarities and differences

Effect Size

Deliberate Practice	**0.79**(Hattie)
Transfer Strategies	**0.86**(Hattie)

Definition

The teacher uses various forms of analogies to help students make connections within and between content topics. Students are asked to find similarities and differences in methods, structures, genres, etc. Students are not only able to identify, but also elaborate on their comparisons.

Examples

Students are taught how to make comparisons using graphic organizers and sentence stems.

- "_____ is to _____ as _____ is to _____."
- "How is _____ like _____? How are they different?"
- "_____ are similar to _____ because _____. They are different because _____."

- Venn Diagram
- Double Bubble Map
- Similes and Metaphors
- T-Charts
- Sorting/Categorizing Activities

Resources

Identifying Similarities and Differences

References

EFMS Instructional Strategies. (n.d.). *Identifying similarities and differences.* Retrieved November 29, 2023, from https://sites.google.com/a/efms.enosburgk12.net/efms-instructional-strategies/identifying-similarities-and-differences

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7. *Various levels of questioning are evident; students independently practice skills.*

7a. Various levels of questioning are evident

Question levels	Round robin (Kagan)

Effect Size

Questioning	**0.49**(VL)
Cooperative vs. Individualistic Learning	**0.55**(VL)
Teacher Expectations	**0.43**(Hattie)

Definition

Teachers pose questions to all students that vary in complexity and task. All students are given opportunities to respond to questions in many formats. Some questions will be less complex and lower in DOK level, while others will be more complex and have a higher level of thinking. It is important that question types and response formats are varied.

Students have multiple avenues to show their thinking, and all students are expected to engage with each question.

Examples

During a class review of the prior day's math lesson, the teacher asks students questions to elicit thinking and engagement.

- Can you explain what we learned yesterday?
- What new vocabulary words did we learn?
- In this example problem, is the solution correct? Explain why or why not.
- How would you compare ___ to ____?
- What would happen if ___?
- What kind of model or visual representation could we design to show our thinking?

All students are expected to engage in the thinking during questioning. This means, calling on students with raised hands is not the best method of response. Consider alternative structures such as:

- Think
- Pair
- Share
- Choral Response
- interactive formats such as Kahoot, Blooket, PearDeck -Round Robin

Resources

Bloom's Taxonomy
Question Planning/Evaluation Sheet (Jim Knight)
Art & Science of Teaching/Asking Questions at Four Levels
Questioning Strategies
Webb's Depth of Knowledge Wheel

References

Armstrong, P. (2010). *Bloom's Taxonomy.* Vanderbilt University Center for Teaching. https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/

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7. *Various levels of questioning are evident; students independently practice skills.*

7b. Students independently practice skills

Structured practice

Effect Size
Deliberate Practice **0.79**(Hattie)

Definition

Students engage in practice activities to develop skills, strategies, and processes. “Deliberate practice often refers to challenging, effortful repetition, often adjusted through feedback” (Visible Learning, Corwin, https://www.visiblelearningmetax.com/influences/view/deliberate_practice).

Examples

The teacher plans for and provides practice time for students each day. The practice structure and format are intentionally designed to build independence and mastery of the skill, strategy, or process. A list of practice descriptions can be found in the New Art & Science of Teaching (Marzano, pp.38-39) for the following:

- Modeling
- Guided Practice
- Close Monitoring
- Frequent Structured Practice
- Varied Practice
- Fluency Practice
- Worked Examples
- Practice Sessions Prior to Testing

Resources

Structured Practice Sessions (Marzano)

References

Corwin Visible Learning Plus. (n.d.). *Deliberate practice.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/deliberate_practice

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8. *Students apply general principles to specific problems; students generalize their learning beyond the particular topic or task at hand; students apply previously learned knowledge and skills; students engage in problem-solving.*

8a. Students apply general principles to specific problems

Guided practice

Effect Size
Transfer Strategies **0.86**(VL)

Definition

Guided practice provides students with explicit instruction combined with step-by-step application. During guided practice, the teacher models for students how to do what they are learning. It is an opportunity for the application of a skill or process in a low-risk environment with immediate feedback.

Examples

In problem-solving, guided practice may look like a teacher facilitating the class or a group of students through a problem-solving task. The teacher poses a problem, and then models (through thinking aloud and showing strategies being used) the process for solving the problem. The modeling specifically names how the knowledge students have can support in solving this specific problem.

Resources

Evidence-Based Teaching

References

Corwin Visible Learning Plus. (n.d.). *Transfer strategies.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/transfer_strategies

Killian, S. (2015, June 17). *8 strategies Robert Marzano and John Hattie agree on.* Evidence-Based Teaching. https://www.evidencebasedteaching.org.au/robert-marzano-vs-john-hattie/

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8. *Students apply general principles to specific problems; students generalize their learning beyond the particular topic or task at hand; students apply previously learned knowledge and skills; students engage in problem-solving.*

8b. Students generalize their learning beyond the particular topic or task at hand

Real-world content connections | **Analogies**

Effect Size
Transfer Strategies **0.86**(VL)

Definition

Students are able to connect what they are learning in a specific content area or lesson to another topic, including making real-life connections.

Examples

The teacher specifically names connections from one lesson to the next and from one content to the next. In planning, the teacher thinks about what real-life scenario demonstrates the importance of the topic. May sound like...

- "Yesterday, I was thinking about our math lesson and I realized..."
- "This reminds me of what we talked about last week..."
- "Tell me about how ____ helps me understand ____."

Resources

Building Learning Agility

References

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8. *Students apply general principles to specific problems; students generalize their learning beyond the particular topic or task at hand; students apply previously learned knowledge and skills; students engage in problem-solving.*

8c. Students apply previously learned knowledge and skills

Cumulative review | **Presented problem**

Effect Size

Strategy to Integrate with Prior Knowledge **0.93**(VL)

Definition

As a cumulative review and assessment method, students must demonstrate their understanding of previously learned knowledge and its connections to new content. This can come in the form of a review question mixed in with new content questions, a written assignment incorporating standards from prior units, or solving a complex problem.

Examples

Presented Problem - The teacher poses a problem to students that requires them to draw on previously learned skills to solve.

Resources

Digital Promise (K-2 Math)
Cumulative Assessments

References

Corwin Visible Learning Plus. (n.d.). *Strategy to integrate with prior knowledge*. Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/strategy_to_integrate_with_prior_knowledge

Digital Promise. (n.d.) *Cumulative review*. Retrieved November 29, 2023, from https://lvp.digitalpromiseglobal.org/content-area/math-pk-2/strategies/cumulative-review-math-pk-2/summary

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8. *Students apply general principles to specific problems; students generalize their learning beyond the particular topic or task at hand; students apply previously learned knowledge and skills; students engage in problem-solving.*

8d. Students engage in problem-solving

Cognitively complex tasks

Effect Size

Problem-Solving Teaching **0.67**(VL)

Definition

Students solve problems using multiple steps and processes. Students are given tasks that require them to use their knowledge in a new or different way. The problems posed by the teacher do not have one correct answer, but instead can be solved in a variety of ways.

Examples

Problem-Solving Tasks: Students set a goal, identify obstacles or constraints to reaching that goal, find solutions, predict which solution is most likely to work, test their prediction, evaluate the results, and reflect on the process.

Decision-Making Tasks: Students are asked to identify possible alternatives to challenge, outline the criteria for which each alternative will be judged, apply criteria to each, and select most appropriate.

Invention Tasks: Students are asked to design a product that achieves a goal or solves a problem. Students must consider the design and create a prototype. Then, the prototype is tested to determine if it is effective and how it can be improved.

Resources

Creative Problem-Solving Teaching Strategies

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9. *Uses a variety of formative assessment techniques; assesses learning progress before or during the learning process itself; instruction is adjusted as a result of formative results.*

9a. Uses a variety of formative assessment techniques

Check for understanding	Self-assessments	Observations	Immediate feedback

Effect Size

Success Criteria	**0.88**(VL)
Clear Goal Intentions	**0.51**(VL)
Classroom Discussion	**0.82**(VL)
Evaluation and Reflection	**0.74**(Hattie)
Feedback	**0.62**(VL)

Definition

Formative assessments are part of an ongoing process to monitor each student's learning on a continuous basis. Formative assessments typically measure a few things frequently and are intended to inform teachers regarding the effectiveness of their practice and to inform students of the next steps in their learning progression.

Examples

Teachers plan for the use of formative assessments (format, timing, techniques, responses) during PLCs. The formative assessment methods are varied to allow students to demonstrate their learning in multiple ways and should allow for immediate feedback to the students. Some possible formats of formative assessment may include:

- Response boards
- Voting or polling
- Interactive formats such as Pear Deck, Kahoot, Padlet, Flipgrid
- Exit tickets
- Self-scoring on a scale or rubric

Resources

Embedding Formative Assessment (p. 119-122); Chapter 3 and Chapter 4
Teacher action feedback - Chapter 6 and Chapter 7 of Learning By Doing
Student action feedback - p. 11 The New Art and Science of Teaching
Success Criteria Playbook - Mod. 1 p. 13-17
Learning by Doing Pg. 119; Chapter 6
New Art and Science of Teaching - Element 24 increasing response rates

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Corwin Visible Learning Plus. (n.d.). *Feedback.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/feedback
Corwin Visible Learning Plus. (n.d.). *Peer assessment.* Retrieved November 29, 2023, from https://www.visiblelearningmetax.com/influences/view/peer_assessment
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9. *Uses a variety of formative assessment techniques; assesses learning progress before or during the learning process itself; instruction is adjusted as a result of formative results.*

9b. Assesses learning progress before or during the learning process itself

Check for understanding | **Informal assessments**

Effect Size

Feedback	**0.70**(Hattie)
Formative Evaluation	**0.40**(VL)

Definition

Formative assessments provide a general sense of how the class/an individual student is progressing toward the learning target. Formative assessments should provide immediate teacher feedback. Because of this immediacy, formative assessments should take place before and during the learning process to allow for clarification and adjustments to instruction.

Examples

Prior to introducing new content, the teacher uses an informal assessment method to determine students' prior knowledge and understanding. During a lesson, the teacher checks for student understanding to know what concepts need clarification and whether or not additional skills and knowledge can be added at that time. Possible informal assessment methods include:

- Chunk, Chew, Check, Change
- Kagan Strategies
- Response Boards
- Voting or Polls
- Student confidence ratings

Resources

Definition- Learning By Doing p. 142
Chunk, Chew, Check, Change
27 Easy Formative Assessment Strategies for Gathering Evidence of Student Learning
7 Smart, Fast Ways to Do Formative Assessment

References

Converse County School District Instructional Cycle (DAS). (2018, November 29). Converse County School District. https://cdnsm5-ss20.sharpschool.com/UserFiles/Servers/Server_117150/File/Teaching%20&%20Learning/DAS_Instructional%20Cycle%20Docs/Instruction-tier%201%20process.pdf

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9. *Uses a variety of formative assessment techniques; assesses learning progress before or during the learning process itself; instruction is adjusted as a result of formative results.*

9c. Instruction is adjusted as a result of formative results

Informal assessments	Specific and immediate feedback	Multi-tiered system of support (MTSS)

Effect Size

Response to Intervention	**1.29**(Hattie)
Differentiation	**0.51**(VL)
Feedback (timing)	**0.89**(VL)

Definition

Through the use of formative assessment, teachers are able to make instructional decisions in real-time and based on the immediate needs of students. Although instruction should be well-planned and organized in advance, teachers need to adapt and adjust their instruction based on the response of their students. Additionally, the system must have a structure in place to provide multiple tiers of instruction for students needing additional support or extensions of the content.

Examples

While teaching a math lesson, the teacher asks students to solve several problems using the newly taught strategy. Students solve individually on whiteboards or notebooks. The teacher s is able to scan the responses and immediately notices that the majority of students are not using the new strategy successfully. The teacher adjusts his lesson plan to instead reteach the strategy with more detailed, broken-down steps. After doing so, he asks students to once again solve a problem on their response boards. This time, all but a few students are successful. The teacher releases the students to work individually on practice problems while keeping the few who need more instruction with him for small group instruction using manipulatives.

Resources

Converse Country School District Teaching & Learning
Excerpt from Carol Ann Tomlinson on Differentiation Strategies
Three Ways Formative Assessment Supports Students (and Teachers) in the Classroom

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10. *Teacher crafts a question or series of questions to prompt focused discussion, all or most students engage in the discussion in a safe learning environment, and students learn from each other.*

10a. Teacher crafts a question or series of questions to prompt focused discussion

Accountable talk – teacher | **Question levels**

Effect Size

Classroom Discussion	**0.82**(Hattie)
Questioning	**0.49**(VL)

Definition

Recurring, predictable discussion structures with the goal of elevating rigor and participation. Teacher role: Explicitly teach structures and language supports for students to use when engaging in academic conversations. The teacher monitors student participation and teaches strategies for expanding the discussion.

Question Levels- The teacher intentionally plans for and asks questions that require students to analyze information, evaluate conclusions, make inferences, and generate ideas.

Examples

Several days a week, after read aloud, the teacher intentionally plans a literature discussion. The students have learned that with the teacher's signal, they rearrange their seating into a circle. The teacher prompts the students with either a thought-provoking question or by rereading a portion of the text and asking for reactions and noticings. The students then authentically take turns sharing their thoughts about the literature, using accountable language frames and questions as support (which have previously been taught and practiced). *See below*

Question Examples:

- How would you explain _____?
- What might be some pros and cons of ____?
- What do you think might happen if _____?
- What evidence do you have to support your thinking?
- What information do you believe is most important and why?
- What changes would you make to ____?

Resources

Grand Conversations and Read Aloud
Cornell Center for Teaching Innovation
Art & Science of Teaching/Asking Questions At Four Different Levels

References

Cornell University Center for Teaching Innovation. (n.d.). *Using effective questions*. Retrieved November 29, 2023, from https://teaching.cornell.edu/fall-2020-course-preparation/engaging-students/using-effective-questions#:~:text=Getting%20started%20with%20designing%20effective%20questions&text=Ask%20students%20to%20explain%20their,explain%20how%20to%20do%20something

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10. *Teacher crafts a question or series of questions to prompt focused discussion, all or most students engage in the discussion in a safe learning environment, and students learn from each other.*

10b. All or most students engage in the discussion in a safe learning environment

Accountable talk - student (including academic language, metacognition, and self-reflection)

Effect Size

Classroom Discussion	**0.82**(Hattie)
Metacognitive Strategies	**0.60**(Hattie)

Definition

Recurring, predictable discussion structures with the goal of elevating rigor and participation.

Student role: Students learn to argue and reason with supporting prompts and questions. As they participate, students build metacognition by resisting impulsivity and seeking clarity, cohesion, and coherence.

Examples

Prompts and Questions:

- I agree with ___ because ___.
- I disagree because _____.
- This makes me think _____.
- I wonder _____.
- I am confused about _____.
- Based on the evidence, how would you explain...?
- How do you think ___ perspective may differ?
- What patterns are you noticing?

Resources

Bringing All Students Into Discussions

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10. *Teacher crafts a question or series of questions to prompt focused discussion, all or most students engage in the discussion in a safe learning environment, and students learn from each other.*

10c. Students learn from each other

Accountable talk	Rally coach (Kagan)	Jigsaw method	Reciprocal teaching

Effect Size

Classroom Discussion	**0.82**(Hattie)
Cooperative vs. Individualistic Learning	**0.55**(VL)
Jigsaw Method	**1.20**(Hattie)
Reciprocal Teaching	**0.74**(Hattie)

Definition

Recurring, predictable discussion structures with the goal of elevating rigor and participation.

Student role: Students learn to argue and reason with supporting prompts and questions. As they participate, students build metacognition by resisting impulsivity and seeking clarity, cohesion, and coherence.

Partners take turns, one solving while the other coaches. The teacher introduces a topic or text with several subtopics. Students are grouped together, and each member of the group is assigned a subtopic. Students assigned the same subtopic work together to become experts by reading, researching, and discussing. Experts then return to their home group and share their knowledge and understanding of the subtopic.

Reciprocal Teaching - Students are taught four specific strategies for comprehension: summarizing, clarifying, predicting, and questioning. The teacher models how to use each strategy during and after reading. Over time, students begin to take on the responsibility of each strategy within a small group until they are able to assume the role of facilitator in a small group discussion. Through this process, students learn from each other as well as the need to self-monitor their understanding during and after reading.

Examples

Prompts and Questions:

- I agree with ___ because ___.
- I disagree because _____.
- This makes me think _____.
- I wonder _____.
- I am confused about _____.
- Based on the evidence, how would you explain...?
- How do you think ___ perspective may differ?
- What patterns are you noticing?"

One partner solves a multi-step math problem as their partner gives suggestions, encouragement, or feedback. The partners switch roles for the next problem.

As an introduction to text structures, the teacher collects four short summary articles explaining each structure: compare & contrast, chronological, cause & effect, problem & solution. After a brief explanation of the idea of text structures, the teacher groups the students into 6 groups, each with four members. Each member of each group is then given a structure on which to become an expert. Students gather with their expert groups to read the description of the structure and discuss what it means. When the group feels they have mastery of the structure, they disperse back to their home group. Then, each group member shares about their assigned structure and answers questions from their group mates. At the end of the activity, every student has learned about each structure and been given the opportunity to teach to their classmates.

After several modeled sessions using the roles of predictor, summarizer, clarifier, and questioner, four students are able to facilitate their own book discussion.

Resources

Jim Knight's Attributes of Effective Thinking Prompts
Kagan Online
The Jigsaw Classroom
Reading Rockets article

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11. *Instruction is aligned with the district guaranteed and viable curriculum, and teachers provide students with the instruction and support to achieve the intended learning targets.*

11a. Instruction is aligned with the district guaranteed and viable curriculum

Teacher clarity	Collective teacher efficacy

Effect Size

Teacher Clarity	**0.75**(Hattie)
Collective Teacher Efficacy	**1.36**(VL)

Definition

A guaranteed and viable curriculum ensures that all students, regardless of teacher, have the opportunity to learn the same content in a specific grade or course. The curriculum and assessments adhere to the state and district standards.

The shared belief by a group of teachers in a particular educational environment that they have the skills to positively impact student outcomes.

Examples

Grade-level priority standards are taught in the same order, with similar pacing, regardless of the classroom teacher. Teachers work collaboratively to plan, assess, and analyze instruction and student data to stay aligned.

By working in PLCs, teachers align their goals and their instruction, and in doing so, build the belief they are not working in isolation. Teachers work as a team through cycles of inquiry to improve student outcomes.

Resources

Learning By Doing (p. 123)
The 5 Steps of a Collective Efficacy Cycle
Three Actions for Building a Culture of Collective Efficacy

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11. *Instruction is aligned with the district guaranteed and viable curriculum, and teachers provide students with the instruction and support to achieve the intended learning targets.*

11b. Teachers provide students with the instruction and support to achieve the intended learning targets

Scaffolding	Feedback

Effect Size

Scaffolding	**0.58**(VL)
Feedback	**0.62**(VL)

Definition

Scaffolding is a common educational practice by which a teacher establishes and gradually removes outside assistance that enables students to complete educational tasks. Subject matter is taught in a meaningful, realistic, and contextually rich way that enables students to understand its relationship to what they already know.

Feedback is the information loop between the teacher and the students that provides students with an awareness of what they should be learning and how they are doing.

Examples

Teachers use pre-assessment data to plan for chunks of instruction that is manageable and meaningful for students. The teacher presents the content in small, related sets, and allows for processing time between chunks of instruction. Some students have additional supports to use during practice time to allow for them to access the content. When those supports are no longer needed, they are removed.

The teacher provides students with timely, specific next step(s) in their learning on a consistent basis. Students are always aware of what their next step is toward growth on a specific skill or task.

Resources

The New Art and Science of Teaching (p. 41-43, 62, 105)
6 Scaffolding Strategies to Use with Students

References

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