# Instructional Strategies List



*Below is a list of 49 instructional strategies, or approaches, that have been adapted with the working groups of the Washoe County School District. What follows the list is some explanation of each strategy/approach, along with related strategies/approaches where applicable.*

1. Academic vocabulary and language
2. Accountable talk
3. Adapting to learning styles/multiple intelligences
4. Analysis of student work
5. Close read
6. Conferencing
7. Cooperative learning
8. Cues, questions, activating prior knowledge
9. Current events
10. Debate
11. Direct instruction
12. Discovery/Inquiry-based learning
13. Document-based questions
14. Effective questioning
15. Field experience, field trip, or field study
16. Flexible/strategic grouping
17. Formative assessment process
18. Generating and testing hypotheses
19. Graphic organizers
20. Guest speakers
21. Hands-on learning
22. Homework and practice
23. Identifying similarities and differences
24. Integration of content areas
25. Jigsaw
26. Learning centers
27. Lecture
28. Mastery learning
29. Modeling
30. Music and songs
31. Nonlinguistic representations
32. Note booking/journaling
33. Number talks
34. Peer teaching/collaboration
35. Project-based learning
36. Read-aloud
37. Reading and writing across the curriculum
38. Realia
39. Reciprocal teaching
40. Reinforcing effort and providing recognition
41. Role play/simulations/drama
42. SIOP strategies
43. Socratic seminar
44. Structured academic controversy
45. Student goal setting
46. Student self-assessment
47. Summarizing and note taking
48. Targeted feedback
49. Word wall
50. Other

 

# Instructional Strategies List



| # | Instructional Strategy/Approach | Related Strategy/Approach |
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| 1 | **Academic vocabulary and language**<br>Academic vocabulary and language is used in academic dialogue and text and may not necessarily be encountered in conversation, though it relates to more familiar words that students use, such as *observe* rather than *watch*. Understanding academic vocabulary and language helps students to understand oral directions and classroom instructional dialogue and to comprehend texts across different content areas, including math, science, and social studies/history. Important for all learners, academic vocabulary and language must be taught explicitly, particularly to second language learners. Generally, vocabulary is categorized into three tiers: (1) Basic vocabulary or words most children will know, including high-frequency words that usually are not multiple meaning words. (2) Less familiar, yet useful vocabulary found in written text and shared between the teacher and student in conversation and referred to in the Common Core as "general academic words." Also called "rich vocabulary," these words are more precise or subtle forms of familiar words and include descriptive and multiple meaning words. Instead of walk, for example, saunter might be more descriptive. (3) The third tier of words is called "domain specific" in the Common Core and refers to words that carry specific concepts of the subject matter or processes taught in schools. Generally, they have low frequency use and are limited to specific knowledge domains (e.g., isotope, peninsula, or mitosis), which are best learned with content lessons and are common in informational texts. | a. Close reading<br>b. SIOP strategies<br>c. Word wall |
| 2 | **Accountable talk**<br>Talking with others about ideas is fundamental to classroom learning. Classroom talk that promotes and sustains learning should be accountable to other learners, use accurate and appropriate knowledge, and adhere to rigor in thinking. Accountable talk responds to and further develops what others have said through relevant observations, ideas, opinions, or more information. Accountable talk draws on evidence appropriate to the content area (e.g., a proof in math, data from investigations in science, textual details in literature, primary sources in social studies) and follows the rules of reasoning. | a. Cooperative learning<br>b. Discovery/Inquiry - based learning<br>c. Socratic seminar |
| 3 | **Adapting to learning styles/multiple intelligences**<br>The cognitive theory of multiple intelligences posits that students learn, remember, perform, and understand in different ways, including various intelligences, such as musical–rhythmic, visual–spatial, verbal–linguistic, logical–mathematical, bodily–kinesthetic, interpersonal, intrapersonal, and naturalistic. As a cognitive theory, learning styles/multiple intelligences is controversial but has proved useful to classroom teachers in fostering different interests, providing variety and differentiation in instruction, and developing the whole child. | a. Field experience, field trip, or field study<br>b. Hands-on learning<br>c. Learning centers<br>d. Music and songs<br>e. Role play/ simulations/ drama |
| 4 | **Analysis of student work**<br>Analysis of student work may be (1) a feature of a lesson conducted by a teacher or (2) individual feedback provided to students from a teacher; (3) a discussion among a small group of students who are providing feedback to one another; (4) a discussion among teachers of the aspects of student work; and/or (5) a mode of formally assessing a skill, such as writing. For any of the foregoing purposes, some protocol describing the attributes and levels of quality for the particular learning task is required as the basis of an analysis. When used in formal assessment situations, anonymous student exemplars that illustrate various responses and levels of quality plus an analysis of inter-rater reliability promote consistency and validity. | a. Conferencing<br>b. Student self-assessment |
| 5 | **Close read**<br>Close reading refers to approaching a variety of texts of sufficient complexity through a methodical examination (often used in poetry explication) in order to uncover layers of meaning | a. Document-based questions |

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| | that lead to deeper comprehension. How a text is written is as important as the content itself in understanding the author's meaning. Deriving meaning from a close reading of a text requires attention to how the text makes meaning through imagery, word choices, and sentence structure as well as how the central idea, tone, and voice are revealed through the choices of detail and language. Emphases on close reading of complex texts reflect priorities of the Common Core. | |
| 6 | **Conferencing**<br>A one-to-one teacher conference with a student about his or her work in progress is prevalent in teaching writing and speaking, but it is also useful in other areas. The purpose of the conference--engaging in meaningful conversation about the student's work in progress--will not be realized automatically. Preparation (on the part of both the teacher and the student) before the conference, careful listening during the conference, recordkeeping, and follow-up are essential components for a successful outcome. In student-to-student conferencing, participants require guidance, a focused protocol, and accountability. | a. Analysis of student work<br>b. Student goal setting<br>c. Student self-assessment |
| 7 | **Cooperative learning**<br>Students in small heterogeneous groups take roles and learn to share knowledge and tasks with one another through a variety of structures with this strategy. While different experts categorize these differently, common features of effective cooperative learning include team building, positive interdependence, group interaction, structured activity, and individual accountability. | a. Jigsaw<br>b. Structured academic controversy |
| 8 | **Cues, questions, activating prior knowledge**<br>With respect to Ausabel's cognitive theory that learning new knowledge and skills relies on what is already known, teachers use many strategies to help students activate their prior knowledge and eliminate irrelevant and possibly erroneous knowledge. Cues and questions are among the most frequent ways that teachers prompt students to recall and use what they have already learned. Effective questions and cues focus on what is important and benefit from a judicious use of "wait time" and higher-level questions. | a. Effective questioning |
| 9 | **Current events**<br>Content material taken from current news and information can be used as an occasional or regular teaching strategy to add relevance to a lesson topic or content. Benefits include helping to develop reading/viewing habits, build skills in analysis/critique, and learn presentation skills. Common in social studies, connections to current events help students see relevance in any subject area. | a. Document-based questions<br>b. Structured academic controversy |
| 10 | **Debate**<br>Debate is a structured form of argumentations that requires participants to engage in research, develop listening and oratory skills, and think critically. Debating can be employed as an instructional strategy wherever the learning material and circumstances are open to opposing points of view. Debates may be viewed or read to contribute additional perspectives on a classroom topic. | a. Current events<br>b. Discovery/Inquiry -based learning |
| 11 | **Direct instruction**<br>General usage of the term "direct instruction" refers to instructional approaches that are structured, sequenced, and led by teachers and/or present academic content through teacher lecture or demonstration. Many components of direct instruction are basic to effective teaching, including identifying learning goals, organizing and sequencing lessons to strengthen understanding, modeling a process, providing descriptions and illustrations, checking for understanding, and providing feedback. | a. Lecture<br>b. Modeling |
| 12 | **Discovery/Inquiry-based learning**<br>Inquiry learning is based on constructivist theories of learning, where knowledge is "constructed" from experience and process. It covers a range of approaches, including: field work, case studies, investigations, individual and group projects, and research projects. It is the hallmark strategy of | a. Field experience, field trip, or field study<br>b. Hands-on learning |

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| | science, and often social science, learning. Specific learning processes that students engage in during inquiry include: developing questions, seeking evidence to answer questions, explaining evidence, and justifying or laying out an argument for the evidence. Progress and outcomes are assessed through observing students' learning develop over time through conversations, notebook entries, student questions, procedural skills, use of evidence, and other techniques. | c. Note booking/ journaling |
| 13 | **Document-based questions**<br>A document-based question (DBQ) is an essay question or series of short-answer questions on an examination where students are asked to construct a response using one's own knowledge together with an analysis of provided documents. The documents provided can be from text but can also include primary and secondary sources, pictures, political cartoons, maps, graphs, or charts. Often, the sources are selected to provide different perspectives or views. Document-based questions were developed for the Advanced Placement History test several decades past but since have migrated to other content areas and are explicitly taught in AP classes. DBQ as a general teaching and assessment strategy has been highlighted by Common Core recommendations that students read like detectives and use text in developing their responses. | a. Close read |
| 14 | **Effective questioning**<br>Teacher questioning and student response are common classroom learning activities. Research finds that teacher questions (and cues) are effective when they focus on what is important, require students to respond at higher levels, provide adequate wait time after a question is asked and establish an engaging introduction for the lesson. Effective questioning can also play a role in focusing students on unit learning goals or overarching themes throughout a longer period of study. | a. Cues, questions, activating prior knowledge |
| 15 | **Field experience, field trip, or field study**<br>Often thought of as enrichment or reward activity, experiences outside the classroom enable students to extend classroom learning into real world locales, such as when visiting a natural or historical site, exploring current trades and industries on-site, or working alongside an expert in a field of study. The experience is maximized for students when the purpose is clear, including how they will report on their observations, questions, and conclusions. When feasible, research shows this type of learning to be quite powerful compared to simulations or contrived experiences mirroring the real-world in the classroom. | a. Discovery/Inquiry -based learning<br>b. Guest speakers<br>c. Hands-on learning<br>d. Non-linguistic representations |
| 16 | **Flexible/strategic grouping**<br>Informally grouping and regrouping students for a variety of purposes throughout the school day or during an instructional unit supports the learning of all students. Flexible grouping strategies are used to meet curricular goals, engage students, and respond to individual needs. Flexible grouping helps teachers overcome the disadvantages of ability grouping while still attending to individual performance issues. Both teacher-led and student-led groups will contribute to learning, but grouping decisions should respond to the dynamics inherent in each type of group. Teacher-led groups are the most common configuration—whole-class, small group, and individual instruction—and provide an efficient way of introducing material, summing-up conclusions from individual groups, meeting the common learning needs of a large or small group, and providing individual attention or instruction. Student-led groups take many forms, but share a common feature—that students control the group dynamics and have a voice in setting the agenda. Student-led groups provide opportunities for divergent thinking and encourage students to take responsibility for their own learning. | a. Formative assessment process |
| 17 | **Formative assessment process**<br>"Formative assessment is a deliberate process used by teachers and students during instruction that provides actionable feedback that is used to adjust ongoing teaching and learning strategies to improve students' self- assessment, reflection, and attainment of curricular learning targets/goals" (Smarter Balanced Assessment Consortium, 2013). Formative assessment process | a. Direct instruction<br>b. Flexible/strategic grouping |

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| | builds students' metacognition, increases students' motivation, resulting in self-regulated, life-long learners. Some common classroom formative assessments include: summaries, quick-writes, reflections, checklists, charts, graphic organizers, visual representations, and short quizzes. In recent years, many districts and schools have implemented common formative assessments based on content standards. | |
| 18 | **Generating and testing hypotheses**<br>At an application level, generating and testing hypotheses requires students to use knowledge to extend their understanding or generate new knowledge. It is a fundamental of science learning, problem solving, and historical investigations. The process can be deductive (starting from a general rule or law) or inductive (drawing a conclusion or generalizing from a set of data or information). Asking students to explain their hypotheses, process, and conclusions, ideally in writing, strengthens student learning and accountability. | a. Notebooking/ journaling<br>b. Project-based learning<br>c. Summarizing and note taking |
| 19 | **Graphic organizers**<br>A graphic organizer is a visual and graphic display that depicts the relationships between facts, terms, and/or ideas within a learning task. Graphic organizers are also referred to as knowledge maps, concept maps, story maps, cognitive organizers, and may be introduced as advance organizers before the learning task or at other points in the learning process. Research indicates that they improve learning when there is explicit instruction, incorporating teacher modeling and independent practice with feedback. | a. Direct instruction |
| 20 | **Guest speakers**<br>Like field trips, guest speakers extend learning beyond the classroom. The sources for guest speakers range and can include such resources as local civic and business leaders, civil servants, hobbyists, industry professionals, parents, or even former students. As with any activity, students benefit most when the purpose is clear and they know how the speaker's topic relates to what they are studying. Preparing critical questions ahead of time will ease a Q and A session for everyone. | a. Field experience, field trip, or field study |
| 21 | **Hands-on learning**<br>Hands-on learning is an educational strategy that directly involves learners by encouraging them to do something in order to learn about it. It is learning by doing. Some subject matter like music and art are inherently hands-on; others like higher levels of mathematics are more abstract. Nonetheless, all learning can benefit from activity that stimulates different regions of the brain. For younger learners, those learning English or another language, or those with learning disabilities, thoughtful hands-on teaching strategies are their keys to learning. | a. Field experience, field trip, or field study<br>b. Learning centers<br>c. Music and songs<br>d. Role play/ simulations/ drama |
| 22 | **Homework and practice**<br>Two staples of education, homework and practice are ways of extending learning time for mastering a skill. Designing activity for classroom practice and homework should aim to help students refine and extend their learning. Research shows that the purpose of the work should be clear and when completed should be commented on. The amount of homework should be different from elementary to high school and it should be independent practice so parent involvement should be minimal. The concept of the "flipped classroom" is changing the landscape of homework and practice activity. | a. Direct instruction |
| 23 | **Identifying similarities and differences**<br>Comparing or contrasting two or more items (e.g., poems, characters, processes, animals, artists, historical figures or events) requires students to think at the analysis level of Bloom's Taxonomy. Applicable to all content areas, teachers facilitate critical thinking by providing strategic comparisons, requiring students to justify their comparisons, and allowing for a full range of comparisons—including beyond what the teacher may have expected from students. Research points to this as a high-leverage strategy. | a. Discovery/Inquiry -based learning<br>b. Graphic organizers<br>c. Note booking/ journaling |

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| 24 | **Integration of content areas**<br>There is a strong case to be made for integrating curriculum. It strengthens skills that students encounter in one content area, but also practice in another, such as reading and writing, and it can lead to the mastery of those skills. It provides meaningful instruction for students in multiple areas of standards in a single class or learning experience. It is also a more authentic way of learning because it reflects what we experience, both professionally and personally, in the world. It can be a way to engage students when introducing them to a challenging subject. STEM education is a current example of effective content integration. Research supports the integration of content areas. | a. Project-based learning<br>b. Reading and writing across the curriculum |
| 25 | **Jigsaw**<br>Jigsaw is a cooperative learning strategy that enables each student of a group to specialize in one aspect of a topic or one part of a reading or other task. Students meet with members from other groups who are assigned the same aspect, and after mastering the material, return to the "home" group and teach the material to their group members. With this strategy, each student in the "home" group holds a piece of the topic's puzzle and work together to create the whole jigsaw. The strategy is often used in other instructional situations for the purpose of team building or quickly managing a large task in a short time. | a. Cooperative learning<br>b. Peer teaching/ collaboration |
| 26 | **Lecture**<br>A lecture may be the oldest method of teaching. Research on the impact of lectures on achievement is discouraging when compared to other methods of instruction, but they can have positive applications: presenting new content not available in textbooks, summarizing disparate points of view; focusing students on critical information. Lectures should bridge from what is known to the new content, so the organization of a lecture is important: present a reasonable amount of information, use examples and visuals strategically, summarize and connect points, check for understanding, and take advantage of technologies that allow students to learn from lecture material outside the classroom. | a. Direct instruction<br>b. Graphic organizers<br>c. Summarizing and note taking |
| 27 | **Learning centers**<br>Learning centers are areas created within the classroom where students learn through a designated activity and/or play. Play is an active form of learning that involves the whole child. Even cognitive development is also enhanced by child-initiated exploration and discovery. In learning centers, students learn to make decisions, cooperate and share with others, and problem-solve. The role of the teacher is to (1) observe, listen, and ask questions; (2) demonstrate, participate, or help as needed; and (3) discuss and make connections. | a. Hands-on learning<br>b. Role play/ simulations/ drama |
| 28 | **Mastery learning**<br>As developed by Benjamin Bloom, mastery learning applies the principles of individualized instruction and tutoring to whole class learning. In this model, rather than waiting to the end of a unit to check on progress, teachers design ongoing checks to use during the process to provide individual feedback, diagnose learning needs/difficulties, prescribe specific remediation or enrichment strategies, and re-assess with a parallel assessment. Mastery learning is basic to many textbook programs and has engendered formative assessments as a routine of classrooms. Mastery learning honors the idea that students learn at different levels or paces. A significant body of research shows that compared to traditional classrooms, students in well-implemented mastery classrooms reach higher levels of achievement. | a. Direct instruction<br>b. Formative assessment process |
| 29 | **Modeling**<br>Modeling is an instructional strategy wherein the teacher or another student demonstrates a new concept or skill and students learn by observing and emulating. Modeling is an effective instructional strategy when it allows students to observe thought processes and imitate particular behaviors or steps in a process. Types and purposes of modeling can include approaches such as task and performance modeling (demonstrating a task), metacognitive modeling (thinking aloud), | a. Direct instruction<br>b. Graphic organizers |

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| | and disposition modeling (conveying one's own enthusiasm, interest, or commitment). Modeling can be used across disciplines and in all grades and ability levels. | |
| 30 | **Music and songs**<br>Music is a powerful teaching tool that can be integrated into most learning situations. It has a direct physical, emotional, and psychological effect on students. Music and songs can create a heightened awareness, motivate students to engage more rapidly, and provide a sense of safety. Each of these factors adds considerably to the development of a powerful learning environment. In addition, music can serve as a vehicle to teach curriculum content, such as songs and music from historical eras or a song about a current event promoting a point of view. In this context, music provides a multi-sensory approach to enhance the learning and retention of academic skills. Research supports the use of music as a mnemonic device for learning and recalling information. | a. Adapting to learning styles/ multiple intelligences<br>b. Hands-on learning |
| 31 | **Nonlinguistic representations**<br>Information is stored in the memory in many forms, including imagery (nonlinguistic representations). Since language-based learning dominates so much classroom instruction, instructional strategies that help students create images are intended to stimulate the brain in new ways, increase understanding, and develop memory. Engaging in drawing, kinesthetic activity, physical modeling, and graphically organizing are among activities used by teachers to help students form their own mental pictures. Asking students to explain and share their images encourages meta-cognitive thinking. | a. Graphic organizers<br>b. Hands-on learning<br>c. Role-play/ simulations/dram a<br>d. SIOP strategies |
| 32 | **Notebooking/journaling**<br>Notebooks and journals are a staple of writers, artists, and scientists for whom regular observations, data collection, and documentation are essential. Since learning any subject is enhanced through the discipline of writing, teachers use notebook and journal assignments in many content areas. Students who keep journals are actively engaged in their own learning and have the opportunity to clarify and reflect upon their thinking. | a. Discovery/Inquiry -based learning<br>b. Project-based learning<br>c. Summarizing/ note taking |
| 33 | **Number talks**<br>Number talks are usually short, ongoing daily routines that engage students in "mental math" by grappling with interesting math problems and provide students with meaningful ongoing practice. A number talk is a powerful tool for helping students develop computational fluency because the expectation is that they will use number relationships and the structures of numbers to add, subtract, multiply and divide. Number talks should be structured as short sessions alongside (but not necessarily directly related to) the ongoing math curriculum. It is important to keep number talks short, as they are not intended to replace current curriculum or take up the majority of the time spent on mathematics. | a. Homework and practice<br>b. Reinforcing effort and providing recognition |
| 34 | **Peer teaching/collaboration**<br>Collaborative learning is based on the theory that knowledge is a social construct. Collaborative activities are most often based on four principles: (1) the learner or student is the primary focus of instruction; (2) interaction and "doing" are of primary importance; (3) working in groups is an important mode of learning; (4) structured approaches to developing solutions to real-world problems should be incorporated into learning. Collaborative learning can occur peer-to-peer or in larger groups. Peer teaching/learning is a type of collaborative learning that involves students working in pairs or small groups to discuss concepts, or find solutions to problems. It enables learners to take responsibility for reviewing, organizing, and consolidating existing knowledge and material; understanding its basic structure; filling in the gaps; finding additional meanings; and reformulating knowledge into new conceptual frameworks. Learning from peers increases learning both for the students being helped as well as for those giving the help. | a. Cooperative learning<br>b. Flexible/strategic grouping<br>c. Project-based learning |

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| 35 | **Project-based learning**<br>In K-12 education, project-based learning has evolved as a method of instruction that addresses core content through rigorous, relevant, hands-on learning. Projects tend to be more open-ended than problem-based learning, giving students more choice when it comes to demonstrating what they know. Different from projects that are the culmination of a learning unit, PBL projects are the learning unit, meaning that fundamental concepts and skills are learned throughout the project. Projects are typically framed with open-ended questions (How do we reduce our school's carbon footprint?) that drive students to investigate, do research, and/or construct their own solutions. Students use technology tools much as professionals do—to communicate, collaborate, research, analyze, create, and publish their own work for authentic audiences. Instead of writing book reports, for instance, students in a literature project might produce audio reviews of books, post them on a blog, and invite responses from a partner class in another city or country. | a. Discovery/Inquiry -based learning<br>b. Hands-on learning<br>c. Integration of content areas<br>d. Structured academic controversy |
| 36 | **Read-aloud**<br>Read-aloud is an instructional format, included formally in elementary reading programs and as an instructional activity in all areas and levels of the curriculum. A primary purpose of a read-aloud is to create a community of readers in the classroom and establish a known text as a basis for related literacy activities. Reading aloud allows teachers to model important components of literacy, such as fluency, expression, and interacting with texts while exposing students to vocabulary that is just beyond their instructional level and demonstrating how reading is a source of information and enjoyment. | a. Close read<br>b. Modeling<br>c. Realia<br>d. Word wall |
| 37 | **Reading and writing across the curriculum**<br>RAWAC is not uncommon in self-contained classrooms where literacy is often well integrated into all subject matter and activity. In secondary schools, it may rely on interdepartmental agreements and a professional development program. Nonetheless, research firmly links reading and writing to learning in all content areas, and students who can read in science and history and write about it will have better understanding of content and college-ready skills. | |
| 38 | **Realia**<br>Realia refers to real life objects used in classroom instruction in order to improve students' understanding of other cultures and real life situations. Teachers of English language learners and foreign languages employ realia to strengthen associations between words and the objects themselves. Realia are also used to connect learners with the point of a lesson by providing tactile and multidimensional connections between learned material and the object of the lesson. Primary objectives of this strategy include increasing comprehensible input, using language in context, and promoting verbal interaction and active involvement | a. Hands-on learning<br>b. Learning centers<br>c. Nonlinguistic representations<br>d. SIOP strategies |
| 39 | **Reciprocal teaching**<br>This is an instructional approach in which students become the teachers in small group reading (or other content) sessions. Teachers model, then help students learn to guide group discussions using strategies such as summarizing, question generating, clarifying, and predicting. Once students have learned the strategies, they take turns assuming the role of teacher in a dialogue about what has been read. In another version, students take the roles of predictor, summarizer, questioner, and clarifier. | a. Cooperative learning<br>b. Jigsaw |
| 40 | **Reinforcing effort and providing recognition**<br>Students may attribute success at a task to ability, effort, other people, or luck, but three of these four attributions may be self-defeating. Teachers can influence student beliefs about the relationship between their efforts and accomplishment by helping them track and evaluate their efforts and accomplishments. Providing recognition in the form of praise and reward is fundamental to behavioral learning theory and may be undervalued in relation to intrinsic rewards, but research indicates praise is effective when it is expressly connected to a performance standard and that it is more motivating than tangible rewards. | a. Direct instruction<br>b. Student self-assessment |

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| 41 | **Role play/simulations/drama**<br>Research about the impact on learning provided by simulations and games is encouraging: (1) Games, simulations, and role-playing help students invent, experiment, and practice interpersonal skills in a relatively low-risk environment. (2) The more students use different ways of representing knowledge, the better they think about and recall learning. (3) Simulations provide opportunities to visualize, model, and role-play within a dynamic situation, thereby promoting curiosity, exploration, problem solving, and understanding.<br>Simulations in science and math provide learners the opportunity to engage in experimental situations that would otherwise be too hazardous or cost prohibitive to conduct in the classroom (i.e., simulation of an atom smasher uses gum balls to help students envision what happens in a linear accelerator; a rollercoaster design simulator allows students to experiment with slope, angle, and speed). Students already know that technology can help them conduct operations and manipulate variables to explore reactions. In the technology field, "serious games" is a term for games that are applied to the goals of education, bringing gaming technology to fields such as education, policy development, and leadership. | a. Adapting to learning styles/multiple intelligences<br>b. Discovery/Inquiry -based learning<br>c. Music and songs<br>d. Non-linguistic representations<br>e. Realia |
| 42 | **SIOP strategies**<br>Sheltered instruction (SI) provides access for English learners to grade-level content while they continue to improve in English language proficiency. The Sheltered Instruction Observation Protocol (SIOP®) articulates a practical model of sheltered instruction with 30 features organized into eight components. Its effectiveness as an assessment and observation protocol has been validated by research. | a. Realia |
| 43 | **Socratic seminar**<br>Based on Plato's Dialogues, the Socratic method challenges students to think analytically and critically with the questioning and careful guidance of a teacher. The Socratic seminar is fundamental to the Great Books and Paideia programs. Students sit in a circle to discuss ideas—often moral dilemmas—posed by a reading or work of art. Ideally, teacher questions are open-ended and students are encouraged to use the text as evidence in their responses. Students do not raise hands to speak but signal through eye contact. A variation known as Socratic circles places one circle of discussants within another. The inner circle carries out a discussion while the outer circle listens in order to critique, then the circles shift roles. | |
| 44 | **Structured academic controversy**<br>Structured academic controversy is a cooperative learning strategy developed by David and Roger Johnson in order to structure and focus to classroom discussions. Working in pairs and then coming together in four-person teams, students explore a question by reading about (or viewing) content and then presenting contrasting positions. Afterwards, they engage in discussion to reach consensus. A SAC discussion moves students beyond "either/or" thinking to more nuanced historical syntheses. The strategy typically has five basic steps: (1) students form four-person teams comprised of two dyads; (2) each dyad reviews materials that represent different positions on an issue; (3) dyads reconvene as a four-person team and present their views, one dyad acting as presenters, the other as listeners; (4) the listening dyad repeats back to the presenters what they understood and the sides switch; and (5) the dyads abandon their original assignments and work toward reaching consensus. If consensus proves unattainable, the team clarifies where their differences lie. | a. Cooperative learning<br>b. Debate<br>c. Jigsaw<br>d. Socratic seminar |
| 45 | **Student goal setting**<br>Teachers who set, define, and communicate learning objectives effectively with students employ research-based findings that say goal setting with students should: (1) be flexible and general because when a goal is too narrowly focused, it may limit learning (e.g., If the goal is to learn how a piston works, students may not learn its relationship to other parts of an engine), although too general goals may be unattainable; (2) encourage student ownership (e.g., creating own goals, | a. Conferencing<br>b. Reinforcing effort and providing recognition |

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| | personalizing teacher goals, committing to contracts, and providing feedback on their progress in journals, videos, etc.); (3) focus on understanding over accomplishing tasks; and (4) allow students enough time to adapt goals to their own interests, learning styles, and prior knowledge. Setting goals benefits from explicit instruction. | |
| 46 | **Student self-assessment**<br>Student self-assessment may refer to inventories/surveys that students respond to, such as interests, learning preferences, or college and career diagnostics. It may also refer to academic assessment tools, often a rubric, that describes a learning task or skill by its attributes and level of quality, which students use to assess their own progress and performance. These tools may also be used individually or in teacher or peer conferences and tutorials. | a. Conferencing<br>b. Reinforcing effort and providing recognition |
| 47 | **Summarizing and note taking**<br>Effective summarizing leads to an increase in student learning. Students who can effectively summarize learn to synthesize information, a higher-order thinking skill, which includes analyzing information, identifying key concepts, and defining extraneous information. Helping students recognize how information is structured will help them summarize what they read or hear (e.g., summarizing a reading assignment is more effective when done within summary frames that include questions to direct student attention to specific content). Note taking is a +related strategy that supports student learning. Without explicit instruction in note taking, students may write down words or phrases word for word, without analysis. Successful note-takers summarize to arrive at a nugget of meaning, which they are much more likely to retain and benefit from using notes as a document of their learning. Teachers can prompt students to review and refine their notes, particularly when it is time to prepare for an exam, write a research paper, or other summative assessment of learning. These are college-ready skills that increase opportunity for all students to succeed in higher education. | a. Close read<br>b. Direct instruction |
| 48 | **Targeted feedback**<br>Research and effective practice points to the following keys to using targeted feedback to improve student achievement and avoid negative effects: (1) link feedback to objectives; (2) use a formative evaluation approach over a summative approach; (3) make guidance specific (e.g., proofing remarks or codes may not communicate well); (4) provide feedback in a timely manner (not long after assignment is forgotten); and (5) identify how students should use feedback to make improvements. | a. Reinforcing effort and providing recognition |
| 49 | **Word wall**<br>A word wall is an organized collection of words prominently displayed in a classroom and frequently used as an interactive literacy tool for teaching vocabulary and spelling to children. There are many different types of word walls, such as high frequency words, word families, and story- or unit-related names. Due to the flexible nature of word walls and their potential to "grow" alongside the students, they are used in classrooms ranging from pre-school through high school. Word walls are considered to be interactive and collaborative tools, since they are student-created and student-centered artifacts. Many variations of the word wall are currently in use, including those featuring illustrations of the words and color-coded lists. They teach children to recognize and spell high frequency words, see patterns and relationships, apply phonics rules, and provide reference support during reading and writing activities. Students gain independence by using a word wall in daily activities. | a. Academic vocabulary and language<br>b. Hands-on learning<br>c. Identifying similarities and differences<br>d. Read-aloud |