Kentucky Department of EDUCATION

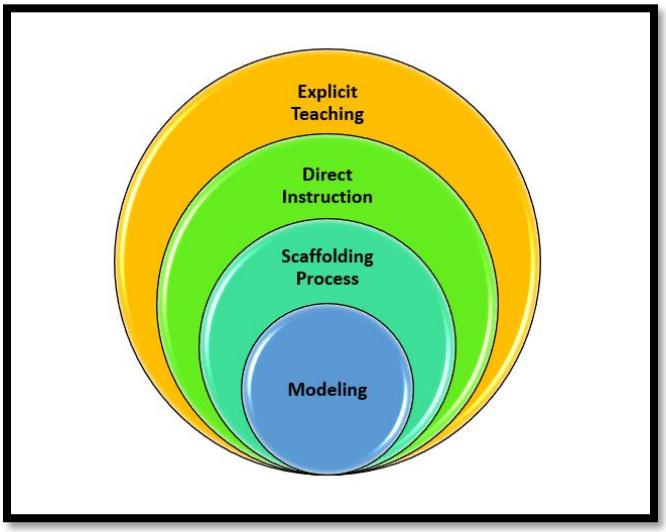
Explicit Teaching and Modeling

Evidence-Based Instructional Practices # 3

Introduction

Consistent research in the field upholds that the quality of day-to-day classroom instruction students receive has a significant impact on their overall achievement. It is imperative that all students have access to high quality, standards-aligned, grade-level instruction. Therefore, as teachers implement the curriculum, they should strategically and intentionally utilize evidence-based instructional practices that support students in reaching the intended learning outcomes. Two interrelated evidence-based instructional practices discussed in this section include explicit teaching and modeling (De Smedt & Keer, 2018; Hattie, et al., 2021; Jayanthi, et al., 2021; TNTP, 2018). **Explicit teaching** is a system of step-by-step instructional approaches in which teachers examine the individual elements they are planning to teach and continually check for student understanding. Two essential instructional approaches within the explicit teaching system are direct instruction and modeling (Ashman, 2021). See figure 4.1 below.

Figure 4.1: Explicit Teaching and Modeling



The Role Direct Instruction Plays in Explicit Teaching

Educators often unintentionally use the terms *explicit instruction* and *direct instruction* interchangeably; however, while related, they are not the same. Explicit teaching refers to a whole system, not just an episode within a lesson; whereas direct instruction is one kind of explicit teaching - a pedagogical approach within that system (Ashman, 2021). Research studies support teaching learning strategies explicitly as a student-centered approach. One such study by the National Literacy Panel (2006) found that interactive approaches to student learning are more effective when combined with direct approaches which provide explicit and direct teaching of specific skills or knowledge (August &

Shanahan, 2006; Moore, 2010). While the need for explicit teaching is strongly grounded in research, it is sometimes unpopular in education as it is viewed as conflicting with more popular education theories including inquiry and project-based learning (Ashman, 2021).

Some educators view explicit teaching as commanding and rigid, upholding that students should come to know information on their own through exploration and discovery rather than through explicit instruction. However, author and researcher Greg Ashman (2021) argues that discovery and explicit learning can co-exist; both have a purpose and place in today's classrooms. Because a large majority of what is often observed in secondary explicit teaching is "suboptimal" (i.e., standing at the front of the classroom lecturing), leaders do not get an accurate sense of what explicit instruction truly is because they do not get enough opportunities to observe it in action.

Explicit Instruction and Teacher Effectiveness

Explicit instruction's true effectiveness comes from its ability to encourage teachers to examine the individual elements they are planning to teach and continually check for student understanding. This key element of explicit instruction forces teachers to think through the step-by-step processes that students must follow to reveal when students do not understand or have misconceptions. Regardless of their educational philosophies, many educational experts have consistently observed the following teacher behaviors during effective explicit instruction. Teachers of explicit instruction consistently (Ashman, 2021):

- Optimize instructional time;
- Use active teaching by presenting concepts to students with a balance of conceptual and procedural knowledge through supervision, encouragement and the building on of initial presentations;
- Are proactive in classroom management practices;
- Demonstrate clarity in communicating learning goals, success criteria and delivery of content;
- Are enthusiastic and warm toward students;
- Provide well-paced "Goldilocks" lessons (not too fast and not too slow);
- Teach to mastery by providing adequate review and feedback; and
- Possess adequate subject matter knowledge where the teacher is viewed as a full director of the learning, not a facilitator or guide (Ashman, 2021).

While explicit teaching is a system of instructional approaches (, direct instruction is a critical approach type within that system. For some educators, direct instruction conjures up negative connotations as a scripted, inflexible instructional approach that devalues teacher autonomy. While it is a commonly misunderstood instructional design strategy in the field, many educators are quick to discount its effectiveness because they do not understand the full scope of benefits direct instruction can provide students when learning new content. **Direct instruction "offers a pedagogical pathway that provides students with modeling, scaffolding and practice they require when learning new skills and concepts" and according to continued research, it remains one of the most effective means of teaching complex content (Ashman, 2021).** In fact, according to John Hattie's meta-analyses research, direct instruction has an effect size of 0.59 - more than one year's growth in one year's worth of time. Therefore, we are likely to see student gains when direct instruction is implemented as intended (Fisher, et al., 2020; Gersten, et al., 1988).

Developed by Siegfried Engelmann and Wesley Becker, direct instruction originally included scripted and carefully sequenced lessons, but have more recently moved into teacher-directed, highly structured lessons based on explanation, demonstration and practice. These more current models of direct instruction focus on student engagement, small group instruction and specific, immediate feedback. One of the primary benefits of direct instruction is that it follows a set methodology, which often uses non-examples to avoid student misconceptions from arising in the first place. Teacher misconception exists that direct instruction is only beneficial in developing basic skills. However, compared to control groups in basic skills, direct instruction groups produced larger gains in student problem solving and self-esteem. In addition, students receiving direct instruction had higher graduation rates than students who did not receive direct instruction following studies many years later (Ashman, 2021).

Lesson Sequences for Direct Instruction

Models of direct instruction are highly controlled to include a sequencing of concepts, and, unlike traditional instructional models and programs, the planning and delivery of direct instruction are seen as separate tasks. Educators plan the responses they desire from students and reinforce those with praise (Ashman, 2021). **Current models of direct instruction lessons suggest the following general pattern or sequence:**

1. Review of previous learning briefly at the beginning of the lesson going from known to new information.
2. State goals at the beginning of the lesson.
3. Present new material in small steps with practice for students after each step.
4. Provide clear, detailed instructions and explanations.
5. Include a high level of active practice for all students.
6. Check for student understanding, ask many questions, and collect responses from all students.
7. Guide students during initial practice.
8. Use explicit instruction and practice for seatwork tasks, monitoring students as they work (Fisher, et al., 2020).

Acquiring New Information and the Role of the Teacher

So how do we ensure that all students are given the same opportunities to learn the content using the best approach possible? Is direct instruction the best approach for all learners? We know that *giving* students information is not enough; they must come to *understand* the content they are learning. According to researchers Grant Wiggins and Jay McTighe, learning for understanding "requires that curriculum and instruction address three different but interrelated academic goals: 1) helping students **acquire** important information and skills, 2) **make meaning** of that content, and (3) effectively **transfer** their learning to new situations both within school and beyond it." Teachers can take on varying roles in the classroom as they attempt to support students in achieving these three academic goals. By incorporating various instructional approaches, the classroom teacher can assume the role of direct instructor, coach or facilitator. While all three roles are needed and serve different purposes in the classroom, **explicit teaching and modeling occurs when the teacher is activating the role of direct instructor and the primary goal is to help learners acquire basic information and skills, particularly information that is new or complex in nature**. Examples of direct instructional methodologies can

include lectures, multimedia presentations, convergent questioning, demonstrations, modeling, guided practice and feedback (Wiggins & McTighe, 2008; Ashman, 2021).

When too much information is presented to students at once, it becomes increasingly more likely that student misconceptions will develop. By teaching small increments of material, providing time for guided practice and then checking for student understanding, teachers are able to limit the number of misconceptions that students develop (Rosenshine, 2012). While **direct instruction is not necessary for all instructional lessons**, author Greg Ashman suggests there is no other instructional approach in the field that has been found to better help students acquire new or complex content information and skills (Ashman, 2021).

So, what does direct instruction look like in today's classrooms? Some educators tend to visualize direct instruction as lecture-oriented, teacher-centered presentations; however, this image is antiquated and far from accurate. Direct instruction allows teachers to flexibly accommodate the needs of lower and higher performing students by providing teachers autonomy to choose feedback through wording and examples that best match students' responses. The focus of direct instruction lessons is not on *how* to present skills and concepts to students, but rather on what students know, don't know and where they need additional support. In most cases, direct instruction is presented to students in small, homogenous flexible groups where instruction is individualized and adjustments within and between groups are made weekly based on analysis of ongoing student formative assessment evidence (Stockard, et al., 2018).

According to Robert Marzano (2017), direct instruction is most effective when it contains the following elements:

Element #1: Chunking Content - New information is best presented in small, incremental and digestible amounts called chunks (Marzano, 2017). **Chunking helps to move information from long-term memory into our working memory so we can manipulate it (Ashman, 2021).** Moving content information by chunks helps in making more efficient use of short-term memory and helps to avoid information overload (Gazith, 2021). When teachers chunk content, they present information and stop at natural breaks for students to process and reflect. When presenting new, declarative knowledge, the chunks are made up of details that logically go together. Steps in a process are chunked together when presenting new procedural knowledge. Pre-assessment data is crucial here because when students demonstrate that they already know about specific content, the chunks presented to them can be larger; the less they know about content the smaller the chunks should be (Marzano, 2017).

Element #2: Processing Content - When learning is paused for the processing of new information to occur, students need to be engaged in strategies that help to facilitate deeper understanding of that content in intentionally planned and structured ways. Doing so ensures that students are engaging with the content at the depth and rigor intended within the *Kentucky Academic Standards (KAS)* and in a way that augments individual students' thinking. The table below provides a few example strategies teachers could use to facilitate processing content with students. Regardless of which strategy is selected, it is important that teachers consider selecting a strategy which allows learners to *actively* engage in the content and clearly articulate the learning goals and success criteria (Marzano, 2017).

Figure 4.2: Example Processing Content Strategies

Strategy	Description
Thinking Hats	The teacher asks students to process new information by imagining themselves wearing any one of six different-colored thinking hats. Each hat represents a different perspective: white hat (neutral/objective perspective), yellow (optimistic), red (emotional), black (careful/cautious), green (creative) and blue (organizational perspectives).
Collaborative Processing	Students are asked to meet in small groups to summarize the information he/she just presented, ask clarifying questions and make predictions about upcoming information.
Jigsaw Cooperative Learning	The teacher organizes students in teams of equal size based on the number of categories there are in the content (four categories = four team members). Each team member is assigned a content category piece to become an "expert" on and present that content information to the remaining members of the group.
Concept Attainment	Students are asked to identify, compare and contrast examples and nonexamples of a concept.
Think-Pair-Share	Students are asked to think critically about a question, pair up with a classmate to come to a consensus on their answer to that question, and then share their response with other groups or the class as a whole.
Scripted Cooperative Dyads	When presented new content students take notes about the main idea and key details. Students are broken into groups of two and students are assigned the role of "recaller" or "listener." The "recaller" summarizes content without looking at his or her notes, while the "listener" adds missing information and corrects any errors in the "recaller's" summary. Students switch roles during the next chunk.

* Adapted from content in *The New Art and Science of Teaching* (Marzano, 2017).

Element #3: Recording and Representing Content - This element of direct instruction allows students to record and present the content from what was learned in the lesson. This element allows students **choice** in demonstrating their understanding of new content in **personally meaningful** ways. Students may choose to demonstrate the content using spoken language, written form or a combination of both. Linguistic representations involve the use of language (i.e., written summaries or word webs), whereas nonlinguistic representations depict content in a nonlinguistic form (i.e., dramatic enactments or pictorial models) (Marzano, 2017).

Element #4: Planning - Direct instruction is effective when teachers address the following considerations throughout their planning process (Marzano, 2017):

- Is the content of my lesson important enough to warrant the time involved in a direct instruction lesson?
- How can I intentionally design and deliver direct instruction lessons that help students understand which parts are important? How do those parts fit together?

- How can I chunk the new content into smaller, more manageable bites of information?
- How can I help students process individual chunks and the content as a whole?
- How can I strategically select strategies to help students record and represent their knowledge?

Scaffolding

The concept of **scaffolding** was first introduced in 1976 by Jerome Bruner as "a process that helps a learner to solve a task or achieve a goal that would be beyond his unassisted efforts" (Wood, et. al., 1976). Decades of research on scaffolding strategies indicate the effectiveness of deliberate planning for and use of scaffolds to support student learning (Simons & Klein, 2007; van de Pol et al., 2010). Scaffolds are typically defined as a temporary support and form of guided practice used to assist a learner when faced with difficult problems, concepts or tasks. As students become more independent, scaffolds are often withdrawn to prevent the learner from becoming overly reliant on them. Examples of scaffolding tools may include cue cards, checklists or completed task models (Rosenshine, 2012).

One essential form of scaffolding is prompting. **Prompting** can help students access and apply prior learning as a bridge to new learning and moves beyond surface level understanding because it often forces students to apply what they have learned previously to a new learning situation. Prompting may take the form of a reminder, a strong hint, a clue or question and should always be followed by adequate wait time. Prompting is most effective when the teacher has a clear picture of where individual students are along a learning progression in order to formulate a prompt that will successfully bridge to new learning (e.g., moving students up to the next stage along their learning progression) (Fisher, et al., 2021).

Thinking aloud is another form of scaffolding that teachers may use as an instructional model of support for students. Thinking aloud is a way for teachers or learners to verbalize thought processes out loud and provide novice learners with an expert model by allowing thinking to be made visible. By verbalizing learners' thought processes out loud, teachers are able to model thinking that would otherwise be hidden. Asking students to think aloud while solving a problem can help teachers to quickly identify and address student misconceptions by making continual adjustments in their instructional practices (Rosenshine, 2012).

Phases of Teacher Scaffolding

According to Barak Rosenshine's research (2012), to assist students in efficiently learning challenging problems, content or tasks, there needs to be a series of phases that students move throughout when scaffolded by their teacher. These phases of teacher scaffolding along with their descriptions are listed in table 4.3 below. Each phase incorporates the scaffolding forms of prompting and thinking aloud mentioned previously by utilizing a gradual release of responsibility model whereby the ultimate goal is to achieve student independence as learners. **Throughout these phases, the level of teacher support in scaffolding decreases as the cognitive load on students increases.** Because complex content requires a greater amount of cognitive load for students to process, teachers must start with explicit instruction where teacher supports are greater and student responsibility is low. As students demonstrate increased understanding of the intended learning outcomes, teachers are able to adjust their instructional supports by decreasing the amount of scaffolding they provide to students. While there is flexibility in the order in which teachers may enter into or move throughout the phases (such as

beginning with a "you do it together" approach to promote inquiry and problem solving), teachers should intentionally plan for each phase of scaffolding until students reach the final phase, independent practice, and can demonstrate understanding in new learning situations and contexts (transfer) (Rosenshine, 2012; Pearson & Gallagher, 1983; Fisher & Frey, 2008).

Table 4.3: Phases of Teacher Scaffolding

Amount of Student Cognitive Load	Phase of Scaffolding	Student or Teacher Grouping	Description & Examples
Low Cognitive Load	**Explicit Instruction** "I Do It"	Teacher + Student(s)	Teachers do (or demonstrate) as students observe. Teachers present content using direct instruction with worked samples, worked examples or think-alouds. In this phase, teacher responsibility is highest.
Mid-Low Cognitive Load	**Guided Instruction** "We Do It"	Small Group of Students	Students and teachers do it together; Shared reading, writing and thinking; Think-alongs/alouds can be utilized by students and/or the teacher.
Mid-High Cognitive Load	**Guided Practice** "You Do It Together"	Student Triads or Pairs	Student pairs or triads do it together as the teacher supports; Paired reading, writing and thinking; Think-alouds/think-alongs can be utilized by the students. Provides learners with the review and elaboration needed to become fluent and involves the same content material used in Guided Instruction.
High Cognitive Load	**Independent Practice** "You Do It Alone"	Individual Student	Students do as the teacher watches. Students are close to mastering the content on their own without scaffolded assistance from the teacher. In this phase, teacher responsibility is lowest.

*Created from research by Rosenshine, 2012; Almasi, 2012; Pearson & Gallagher, 1983; Fisher & Frey, 2008.

Modeling

As mentioned earlier, modeling* is a deliberate and purposeful instructional strategy in which the teacher demonstrates a new concept or approach to learning and students learn by observing. **Modeling describes the scaffolding process whereby students learn or acquire new information, skills or behaviors through observation, rather than through trial-and-error or student practice (See figure 4.1 above).** Deliberate, purposeful modeling is a powerful instructional strategy which makes learning visible by verbalizing the teacher's reasoning out loud, explicitly narrating thinking during a problem-solving process as they demonstrate a specific skill. Many initial metacognitive and self-regulatory skills needed for students to be successful as learners begin at a young age through observation and modeling (Salisu, 2014).

Modeling often involves a gradual transfer of responsibility from teacher to student as students become familiar with the concepts, skills or behaviors being demonstrated. Effective teachers of explicit instruction revisit previous learning, present new material in short steps with lots of practice, continually check for understanding, guide students through shared practice and move students into a period of independent practice (Ashman, 2021). This gradual transfer of responsibility is often referred to as the **Gradual Release of Responsibility Model (GRR)** and purposefully shifts the cognitive load from the teacher as a model to the joint responsibility of teacher and learner; whereby at the end of the process, students are ultimately able to independently practice and apply what they have learned (Pearson & Gallagher, 1983). In fact, explicit teaching is defined by researcher Barak Rosenshine as a "whole system of gradual transfer from teacher to student" (Sherrington, 2019).

*Note: The Modeling Cycle in the *Kentucky Academic Standards for Mathematics* is essential in providing opportunities for students to reason and problem solve. In the course of a student's mathematics education, the word "model" is used in a variety of ways. Several of these, such as manipulatives, demonstration, role modeling and conceptual models of mathematics are valuable tools for teaching and learning; however, these examples are different from the practice of mathematical modeling.

Cognitive Load and Working Memory: Why is Modeling Needed?

When adults join a gym, having a coach there to teach them how to use the equipment, demonstrating how to conduct various exercises and offering feedback along the way is one of the most efficient ways to learn. When an expert is unavailable to coach, humans often resort to trial and error (discovery learning) or imitation through watching or listening to others. People imitate by repeating another person's words or copying experts' actions. Teaching others through demonstration and imitation has most likely been common practice since the evolution of humankind.

Imitation works well for simple tasks but is less effective for complex ones. For example, in trying to learn how to play the piano, imitating a concert pianist would not be an effective or efficient means. Instead, explicit instruction in scales and musical notation through a gradual increase in the complexity of the pieces being learned (easy to hard) would prove more effective. This strategy is referred to as a **bottom-up approach** to learning.

A bottom-up approach "involves breaking expert performance down into small components and teaching these first before reintegrating them." In a school setting, students are in essence asked to imitate scientists (including political scientists, economists, geographers and historians), mathematicians or writers. Educators "constantly reinvent the idea of learning a complex task by imitating the performance of experts" because teachers often consider it to be more authentic. Complex academic learning is best taught through a bottom-up approach. Teachers start with a product in mind because they want to see the learning as purposeful rather than inauthentic skills taught in isolation (Ashman, 2021).

On the contrary, a **top-down approach** seeks to emulate the behaviors of experts in hopes of becoming more expert yourself. Top-down approaches exist because some teachers operate on the premise that

authentic, real-world projects will motivate students to want to learn (i.e., designing a website). While project-based learning experiences have proven to be motivating for some students, **teachers often underestimate all of the steps needed to complete a complex task because they fail to think through where students are in their learning journey and the steps students need to understand to get there.** What if the computer science student cannot use a desktop computer? If not, then a bottom-up approach would need to be implemented to explicitly teach the student in smaller, more immediate objectives (i.e., how to use a mouse, power and log on to the computer, access the internet, or locate information via a browser). While website design contains skills that are observable (i.e., inserting hyperlinks) many of the skills associated with expert performance in academic subjects are latent, cognitive skills that cannot be observed. These skills are often neglected because they involve thinking that is not visible; it occurs within students' minds (Ashman, 2021).

Cognitive load refers to the number of items to be processed in working memory (Ashman, 2021). Learning cognitively demanding knowledge and skills by mimicking the behavior of experts (as in a top-down approach) is fundamentally flawed because experts learn more from solving problems; they already have mental maps of solution methods in their working memory (Sweller & Sweller, 2006). Working memory where information is processed can only handle a few bits of new information at once. Too much new information swamps working memory and may be confusing to students because their working memory may not be able to process the additional information. This is why a bottom-up approach to learning is most effective when presenting students with new or complex content since the material is often easier to "digest" when chunked into smaller, more manageable pieces (Rosenshine, 2012; Marzano, 2017).

Effective teachers present material in small amounts and support students as they practice by dividing information into small steps with modeling/practice at each step. Students need cognitive support to learn and solve new problems. **Modeling and thinking aloud while demonstrating how to solve a problem are examples of effective cognitive support.** For new information to be added to working memory, sufficient rehearsal needs to occur during guided practice. Teachers help to facilitate the rehearsal process when they ask students questions. Questioning requires students to process and rehearse new material. In order for this rehearsal to be effective, students need feedback to process new material and ensure they do not store misconceptions or partial information in working memory. Teaching small amounts of material followed by guided practice and checking for student understanding (formative assessment) can help to minimize misconceptions (Rosenshine, 2012).

Forms of Modeling

Four primary forms of modeling include worked examples, work samples, think-alouds and think-alongs. **Worked examples** are "a step-by-step demonstration of how to perform a task or how to solve a problem," which may be used in any content area, but are most commonly applied in mathematics, science or writing where numerical or written problem solving are frequently found (Anderson, et al., 2003; Fisher, et al., 2020; Rosenshine, 2012). Worked examples have an effect size of 0.37 (Hattie, 2012) and can ignite student thinking as they try to determine why the teacher or person solving the problem made the step-by-step decisions along the way. Teachers may decide to provide students with incorrect worked examples to see if students can find the step or steps that contain errors. By sharing their

thinking aloud while problem solving, students are able to use and incorporate those mental models into their own practices (Ashman, 2021; Fisher, et al., 2020).

Research by John Sweller (2019) indicates that students who were given worked examples to study following explicit instruction in how to solve a problem, outperformed students who were merely given the problem to solve. Using worked examples helps to reduce students' cognitive load as students are able to focus their attention on the most important lesson components. This can create an "expertise reversal effect" as students start listening to explicit instruction and dialogue from the teacher and internalize and convert that same language into their longer-term memory. Hearing the problem solving of the teacher and reducing redundant parts, gets at the heart of the gradual release of responsibility from the teacher (Fisher, et al., 2020).

Work samples are artifacts which help students to arrive at shared descriptors of quality and to allow them to see how the work could look. These artifacts offer a standard for all other work to be measured against. They differ from worked examples in that work examples are more about the process and thinking involved than the completed product. Work samples provide students with a benchmark for their end product and can be students' own work, peers' work or students' work from other classes (Hoffer, 2020).

Think-Alouds vs. Think-Alongs

Think-alouds share the inner workings of teachers' brains as they process information aloud, making their invisible thinking visible. Think-alongs ensure that students are at the center of this engagement process by following an intentionally planned sequence of steps using "I" statements to increase clarity for students and ignite empathetic listening. In essence, think-alongs invite students along in the thinking process. By using "I" statements, students are invited into the thinking process in ways that second-person directives do not. The table below provides a planning structure for think-alongs as well as some practical "I" statement language examples for each (Fisher, et al., 2020):

Figure 4.4: Think-Along Planning Tool with Examples

Component	"I" Statement Language Examples or Places in the Text
Name the strategy, skill or task.	"I am going to think out loud about how I noticed metaphors being used in this passage."
State the purpose of the strategy, skill or task.	"I know that good writers will often include metaphors as a literary device in their writing to emphasize a theme or symbolic message or to help make their writing more interesting to the reader."
Explain when the strategy or skill is used.	"The first thing that got me noticing that there were going to be metaphors coming was in the second line of the first paragraph when the author states, "Lisa's suggestion was just a Band-Aid for the problem.""
Use analogies to link prior knowledge to new learning.	"It's like when I heard someone say their brother's room is a pigsty. His brother's room is not really a pigsty; that person was trying to communicate the message that his room was extremely messy."

Component	"I" Statement Language Examples or Places in the Text
Demonstrate how the skill, strategy or task is completed.	"I'm going to show you the metaphors I saw in the first paragraph. First he says, 'Lisa's suggestion was just a Band-Aid for the problem…' Then he says, 'Her voice was like thunder.' At the end of the paragraph he says, 'Her message was as clear as mud. Three times in that paragraph the author is using metaphors to describe how Lisa is communicating to them in a loud, yet unclear way."
Alert learners of errors to avoid.	"As a writer I can use metaphors to compare two unlike things effectively in my writing and really grab the reader's attention, but I have to be careful that I am choosing metaphors that match the message I am trying to send."
Assess use of the skill.	"I'm going to make a note in the margin where I noticed metaphors and jot down what message I think the author is trying to send here. I want to be able to look back and see if this message continues throughout the text or if it changes."

*Created based on content in *The Distance Learning Playbook, Grades K-12* (Fisher, et. al., 2020).

By providing prompts, modeling use of those prompts and guiding students as they develop independence, teachers are able to convey many of the skills taught in classrooms (Rosenshine, 2012). Teachers and learners may choose to incorporate the following modeling moves to deepen student understanding:

- Demonstrating processes integral to learners' independence;
- Modeling precise academic language to help facilitate learners' discourse; or
- Thinking aloud, modeling or demonstrating one or more specific strategies to support metacognition (Hoffer, 2020).

Within the structure of a workshop, modeling and/or thinking aloud to better prepare students for their work in guided/independent practice often occurs within the mini lesson (also known as the crafting portion of the lesson). Reflection or share time allows the teacher to model reflecting on use of the strategies within the lesson through think-alouds (Hoffer, 2020).

General Resources to Support Implementation of Evidence-Based Instructional Practice #3: Explicit Teaching and Modeling:

- Model Curriculum Framework
    - **Balanced Assessment Section:** This section of the *Model Curriculum Framework* is designed to provide guidance on how teachers and leaders can implement a comprehensive, balanced system of assessments to ensure equitable, high-quality and reliable assessment practices**.** It focuses on developing an understanding of the formative assessment process and how strategies such as explicit teaching and modeling are used to drive the process as teachers interpret and act on evidence of student learning.
- Evidence-Based Instructional Practices (EBIPs): This six-part professional learning series takes a closer look at what is meant by evidence-based instructional practices, as well as the importance of

effective implementation, intentional planning and gathering evidence to determine the impact on student learning. This series will examine six evidence-based instructional practices teachers can use to support learners in reaching expectations within the *Kentucky Academic Standards* and the local curriculum through explicit teaching and modeling across disciplines.

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