



REPORT

Learning Science and Supporting Instructional Best Practices with Easel by TpT™



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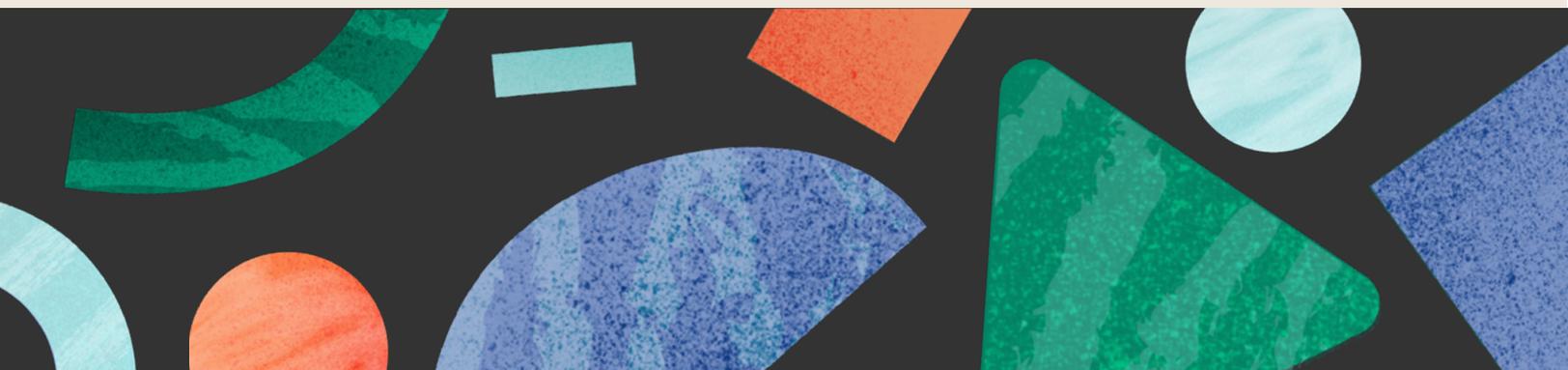
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Introduction

Supporting instructional practices backed by learning science, like differentiation and timely feedback, are critical elements of effective teaching. But in today's changing education spaces, it can be challenging to identify effective ways to deliver these practices to students. That's why [Easel by TpT™](#) is grounded in these important instructional practices — based on a review of relevant peer-reviewed research, interviews with educators, and industry reports.*

“As the education industry embraces innovation and new modes of teaching emerge, teachers need more support than ever before,” said Joe Holland, CEO of TpT. “Teachers have been turning to TpT to get the resources they need to differentiate and toggle between distance, hybrid, and in-person learning. With [Easel](#), TpT is able to provide educators with what they need — pairing easy-to-use digital tools based on learning sciences with the world's largest catalog of educator-created content.”

Keep reading to discover how Easel empowers teachers to support differentiated instruction and deliver timely feedback in online, in-person, and hybrid learning environments.

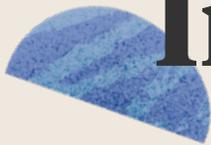
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SECTION 01

Supporting Differentiated Instruction



Supporting differentiated instruction in today's tech-integrated learning environments is vastly different than it used to be. So let's quickly revisit the definition of "differentiation."



"In the context of education, we define differentiation as a teacher's reacting responsively to a learner's needs. A teacher who is differentiating understands a student's needs to express humor, or work with a group, or have additional teaching on a particular skill, or delve more deeply into a particular topic, or have guided help with a reading passage...differentiation is simply attending to the learning needs of a particular student or small group of students rather than the more typical pattern of teaching the class as though all individuals in it were basically alike"

(Tomlinson and Allan, ASCD, 2000).

Learning science shows us that adapting instruction to meet individual students' needs through differentiation leads to increased motivation and engagement. And research points to benefits including [enhanced learning opportunities](#) and [improved student achievement](#).

So how can teachers put differentiation into practice in today's increasingly digital learning environments? Unsurprisingly, many teachers have innovated to deliver new methods of differentiating by using a range of online tools. However, using this vast array of digital solutions can create additional work and cause tech fatigue. That's where Easel can simplify and streamline the experience for educators.

The Research Behind Easel Activities and Differentiation

In developing Easel, TpT's product team referenced research from Tomlinson and Allen (2000), as it presented a clear framework for understanding the ways in which Easel Activities could support the differentiation of content, process, and products according to students' readiness, interests, or learning profiles. For example, Easel Activities supports the differentiation of content by giving teachers the ability to edit and customize instructional materials. Teachers can add text annotations, upload



images, and create digital manipulatives out of movable shapes to tailor a resource's content to their students' readiness or learning preferences. Additionally, to differentiate within the instructional process, teachers can ask students to demonstrate their understanding using the various annotation tools in Easel Activities. Students can show their thinking by manipulating movable shapes or by explaining their thoughts in writing, for example.

Our product team also referred to research from Tomlinson et al. (2003) and Rock et al. (2008), which highlight the importance — and the challenges — of meeting students' individual needs. Tomlinson et al. found that few teachers were taking proactive steps to create learning experiences based on diverse learner needs (2003). Similarly, Rock et al. highlighted the reality that meeting students' individual needs is challenging in practice, especially given all of the competing demands teachers face (2008). With this research in mind, our team built features within Easel Activities to help teachers more easily, proactively, and effectively differentiate instruction for students. The core function of Easel Activities — that is, enabling teachers to customize interactive instructional materials — allows teachers to ensure that the materials they're using can match their students' readiness and are at the proper level of difficulty. Using Easel Activities, teachers can vary the level of difficulty of content by adding or removing pages, editing instructions to include scaffolded directions, and providing customized annotations to meet students where they are. Teachers can also differentiate by their students' unique preference for demonstrating understanding, since students can draw, type, or handwrite responses.

Our team also turned to the results of an experimental study from Reis et al. (2011), which focused on the impact of a differentiated reading program on reading fluency and comprehension. The research results demonstrated that an instructional approach that paired differentiated instruction with less whole class instruction was as or more effective than a typical whole group instructional model. Although this research focused on differentiated reading instruction, it impacted two areas of Easel Activities. First, the study highlighted the importance of providing students with choice and individualized materials. In light of this, our product team made it possible for educators to assign unique Easel Activities to individual students. Within Easel, teachers can edit and create materials that meet individual student needs and interests, and they can assign them directly to each student. Second, the study demonstrated the potential impact of providing students with individual



coaching or conferencing. As a result, our product team made sure that, within Easel, teachers could share individualized feedback that they would typically give during one-on-one conferencing sessions. Within Easel, teachers can add individualized comments and feedback, return that feedback to a student, and give them the opportunity to resubmit their work.

By referencing this research in our product development process, Easel now provides a streamlined way for educators to support differentiation. Keep reading to discover more practical applications of Easel for differentiated instruction, and read more about the research foundation of Easel Activities [here](#).

Using Easel for Delivering Differentiated Instruction

With Easel, providing differentiated instruction becomes easier for educators.

“This school year has pushed teachers everywhere to expand their methods to reach every one of their students as they navigate distance and hybrid learning,” said [Brenda Kovich](#), a 30-year elementary educator and National Board Certified Teacher in Indiana. “Now, with TpT’s new digital tools, it’s easier to pair technology with instructional content to differentiate for all students’ needs.”

Now, teachers can create, present, assign, collect, and respond to lessons, using tools that allow for differentiation from beginning to end. It’s as simple as creating or customizing personalized, interactive resources in order to meet the needs of individual students, small groups, or the whole class.

Additionally, using Easel for differentiation changes how teachers approach lesson planning, delivery, and grading by keeping activities within a single interactive platform that can be accessed from any digital device and used in any instructional setting. Students can access assignments via Google Classroom™ or through an assignment link, and they can then complete and turn in their assignments right on Easel, where teachers can respond to and return student work.

With Easel’s suite of intuitive digital tools, providing differentiated instruction becomes easier for educators.



Easel Features to Support Differentiated Instruction



Edit pages

With the ability to customize pages within an Easel Activity, teachers can:

- **Remove** a page of practice questions that might not be relevant to students' needs.
- **Add your own** page of practice questions that are tailored to the needs or interests of your students.
- **Create different versions** of a given resource to suit different students' abilities.



Movable pieces

Easel Activities provide the ability to add movable shapes and movable text so teachers can:

- Support visual or kinesthetic learners with virtual manipulatives for sorting, labeling exercises, and more.
- Provide students with multiple ways to demonstrate their learning: e.g., students can show their thinking in math using movable counters as well as written text explanations. Or students could draw, write a poem, or create a poster — all within Easel — to demonstrate their learning.
- Hide content that isn't on level.

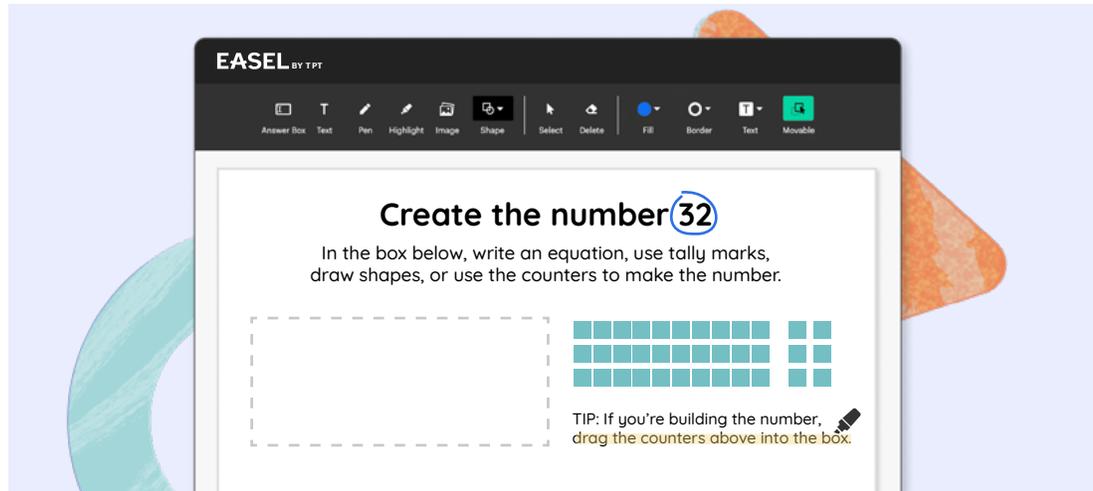


Text and pen tools

Using the answer box, text, and pen tools in Easel Activities, teachers are able to:

- Provide scaffolding by adding extra instructions, writing key words and definitions at the beginning of a lesson, circling and underlining important ideas, and more.
- Encourage students to draw, mark up text, make comments, and add their own questions to demonstrate learning.
- Add challenge questions — such as higher-order, and open-ended questions — or expand upon content.
- Add interest surveys about related topics to gather additional differentiating information.





Highlighter

Using the highlighting tool in Easel Activities, teachers can:

- Point out key words, phrases, and concepts to students.
- Empower students to indicate supporting evidence for their answers or make note of key content they've found.



Link sharing

Teachers can generate discrete activity links and codes to:

- Assign activities to specific groups or individuals via Google Classroom.
- Customize and assign different versions of the same Easel Activity or Assessment to meet students where they are.

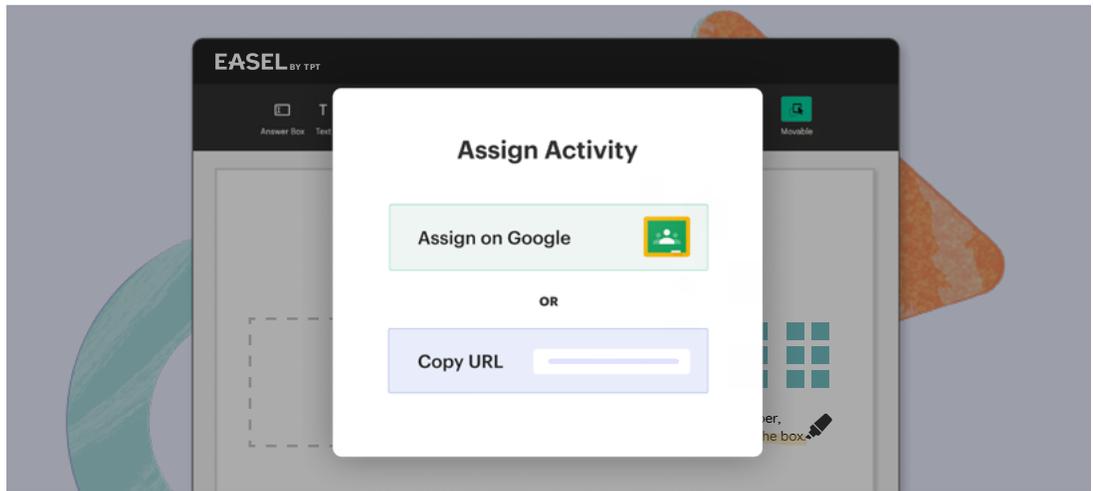


Adding images

Teachers can upload images to both Easel Activities and Assessments to provide additional ways for students to access and engage with information visually.



How Differentiating with Easel Works in Practice



Fourth grade teacher LayToya Herring, who is teaching in a hybrid model for the 2020-21 school year, has been using Easel with a number of subjects, including reading comprehension. “[Easel has the] highlighter tool, so I’ll go in and find the information, and highlight it so the students are able to go back [to the lesson] and they’re like, ‘Okay, I know that I’m looking for blue highlight to answer question number one.’”

She also uses the Easel features to make notes for students and add explanations: “I can type little hints . . . or I can write ‘look at this,’ or circle something and make it obvious that they need to pay more attention to it. That pen tool is heaven-sent. Because sometimes what you need to say or do is not available on the keyboard, or it’s easier when you have the pen tool and you can just write it on [the Easel Activity] really quickly.”

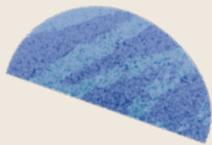
When it comes to math, LayToya has discovered that kids can solve problems in a way that’s more familiar to them. “Long division is almost impossible to do on the regular keyboard . . . Some kids prefer that with the pen tool, because it’s a whole lot like the iPad. They’re used to using their finger on that [device], so that makes it easier.”





SECTION 02

Providing Timely Feedback



Timely feedback takes place at or near the moment that learning happens and offers coaching to help students learn and grow. It's probably no surprise that timely and effective feedback can help students learn more than just the right answer. This practice can also help students learn why an answer is correct and encourage higher-order thinking.

Effective feedback should provide “clear, purposeful, meaningful” guidance and logical connections that are compatible with students’ prior knowledge ([Hattie & Timperley, 2007](#)). And when this type of feedback is provided to students — especially close to the moment of learning — it can empower them to make connections beyond the specific context of a lesson and transfer what they’ve learned to other situations, in and out of school. Which is, of course, what most teachers hope and aim for.

Yet how can teachers [make feedback work](#) in today’s changing learning environments? As learning shifted from brick-and-mortar buildings to remote and hybrid environments, teachers were able to find creative ways to give timely feedback. But wouldn’t it be nice if it were a bit easier for teachers to provide this key element of learning regardless of the learning environment?

“We cannot lose sight of the importance of providing [timely and specific feedback](#), especially when we may not have our kids in front of us”

[\(Mullikin, 2020\)](#).

Easel and the Learning Science Behind Timely Feedback

Timely feedback is delivered either immediately or close to the moment of learning, and gives explanatory or corrective coaching so a student can learn and grow. Learning science indicates that this instructional practice promotes student learning (Weinart & Helmke, 1995), with research pointing to benefits including enhanced learning opportunities, increased retention of information, increased student understanding of personal learning process (Eggen & Kauchak, 2004), and improved student achievement (Hattie, 1999).



Recognizing the benefits of timely feedback for teachers and students, our team referenced research behind this instructional practice in our product development process. For instance, when developing Easel Activities, our product team was informed by the framework outlined by Hattie and Temperly (2007) for effective feedback that enhances learning. Specifically, our team focused on offering features that provide teachers the space and tools needed to share feedback that is purposeful, active, and elaborates on prior knowledge.

Additionally, our product team focused on empowering teachers with tools that enable more impactful feedback, such as corrective and explanatory feedback (Butler et al., 2013, Van der Kleij, Feskens, & Eggen, 2015). We drew from research from Butler et al., which demonstrated that explanatory feedback led to superior performance on tasks that required students to transfer their knowledge, or infer. As a result, within Easel Activities, teachers can use the text tool to add corrective and explanatory feedback on student work, and they can return an activity directly to students to share feedback with them.

When it comes to the timeliness of feedback, research shows that immediate feedback is more effective for lower order learning outcomes (Van der Kleij, Feskens, & Eggen, 2015). Therefore, in building Easel, our team made sure that teachers could send or return an activity with annotated feedback as quickly as possible or within the teacher's preferred time frame. Furthermore, this research was foundational in the development of the "In Progress" and "Returned" views for teachers. These additional states make it possible for teachers to provide real-time feedback to individual students, as teachers are able to observe the progress students are making within an activity.

By referencing this research in our product development process, Easel now makes it easier for teachers to deliver timely feedback to students. Read more about the research foundation of Easel Activities [here](#).



Easel Features Teachers Can Use to Provide Timely Feedback

Teachers have the ability to view their students' Easel Activities or Assessments in two additional states: In Progress and Returned. This allows teachers to better provide real-time differentiated support and feedback for individual students by seeing what progress they're making with the activity and to keep a permanent record of the feedback/grade they sent back.

Using Easel Activities, teachers can:

-  Use text and pen tools, shapes, and highlighting to insert comments, redirection, encouragement, and critical information on students' submitted assignments.

-  Preview assignments using preview mode to work with students on an activity and provide feedback in real time.

-  Grade and return student work immediately or shortly after receiving it for their review.

-  Give students the opportunity to resubmit work you've reviewed, so you can provide them with multiple opportunities to receive feedback and improve their work.

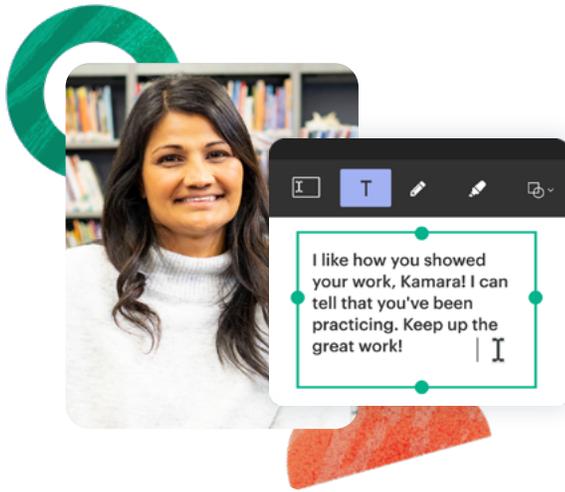
And using Easel Assessments, teachers can:

-  Share instant feedback. As students complete a quiz or assessment, they can see if their answers are correct or incorrect.

-  Review performance at the end of a quiz or assessment. Students can see a report on their answers that will show them 1) if their answers were correct or incorrect and 2) the correct answer if they chose the incorrect answer. This will help both students and teachers identify topics or skills to focus on.

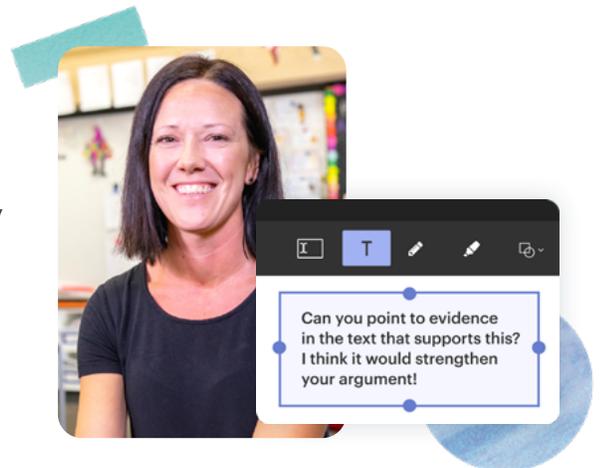


Here are a few ideas for how educators can use features in Easel Activities to provide timely feedback to students in thoughtful and creative ways:



- **Using the text annotation** tool to provide personalized [explanation feedback to promote enhanced transfer of learning](#)
- **Using the pen tool** to provide visual feedback during an online lesson; e.g., draw a star, write a congratulatory word, etc.

- **Using shape annotations** to indicate student progress by using a red circle to show where a student should stop and rethink or a green square to show where the student is ready to proceed.
- **Using shape annotations** to enable students to quiz themselves. Prepare an assignment by providing the answers to each question, but cover those answers with a movable shape. At home, students can answer questions on their own, then move the shape to check their work.
- **Adding text and answer boxes** to ask students questions about their work that encourage them to expand on their thinking
- **While presenting an activity in preview mode**, have students solve a practice problem on their own in stages. Then review each part of the problem, giving students the opportunity to review their work and ask questions at each step.



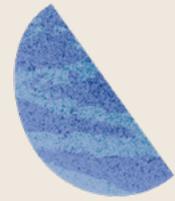
- **While presenting an activity in preview mode**, give a live quiz and immediately review and discuss answers to build students' metacognition about what they know and don't know in preparation for an assessment.
- **Digitally return student work** at the moment learning happens, such as focused exit tickets that quickly check student understanding.
- **Add extra pages to an activity** to create a "conversation space" in which students can add comments or questions about the lesson and the teacher can provide further explanation and clarification.



SECTION 03



Cultivating a Growth Mindset



Cultivating a growth mindset with your students means that learning is approached with the understanding that improvement is possible. And research shows that a growth mindset can improve academic performance.

Defining a “Growth Mindset”

A “growth mindset” is the belief that skills and abilities are not static and can be developed through effort and hard work (Dweck, 2006). Coined by Dr. Carol Dweck, growth mindset is the opposite of a fixed mindset (2006) that says you’re born with talent or resources and that makes you successful. Individuals who believe their brain is like a muscle — and therefore, that their talents and intelligence can be improved through effort — have a growth mindset. While those who believe success is a matter of nature or innate talent have a fixed mindset.

In essence, a growth mindset means believing that hard work and effort can develop skills and create a love of learning — as well as having the persistence to work through challenges.

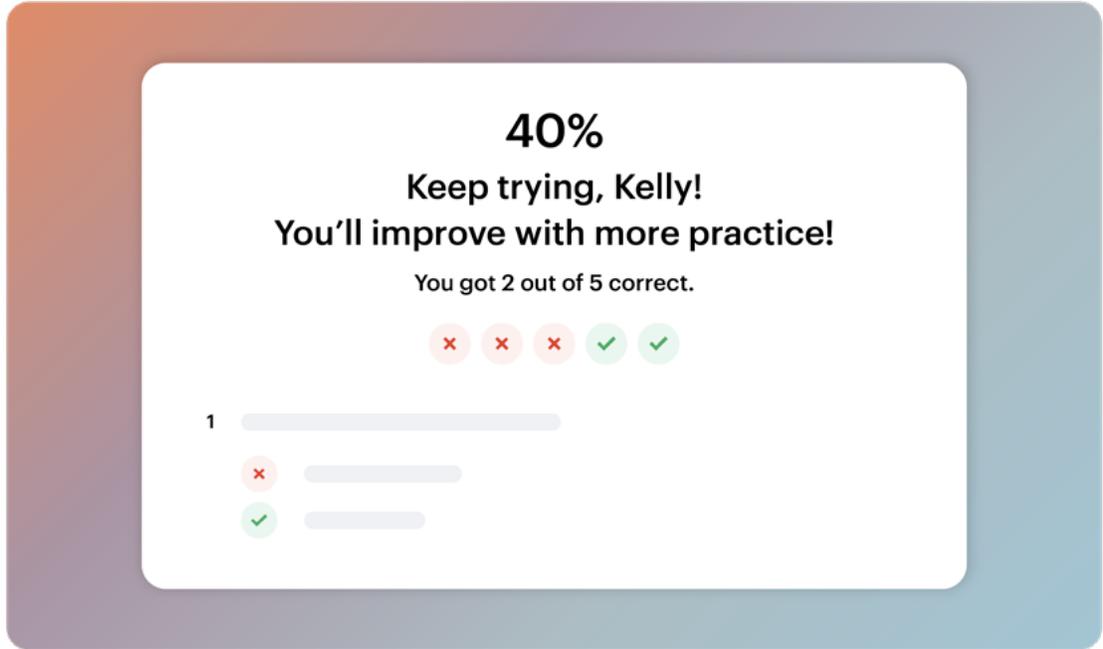
Why a Growth Mindset is Important

But why is a growth mindset important for educators to incorporate and reinforce with their students? Research shows that a growth mindset reliably predicts academic success (Claro, Paunesku, & Dweck, 2016). Students with a growth mindset are more likely to embrace challenges (Mueller & Dweck, 1998), persist in the face of setbacks (Dweck, 2006), and experience deeper learning experiences (Farrington, 2013).

Using Easel Features to Reinforce Growth Mindset with Students

Incorporating growth mindset into digital learning tools helps to reinforce this thinking with students, which is why we designed Easel with features that encourage continued effort.





After a student completes an Easel Assessment, they'll see feedback that aims to focus on their effort — rather than ability — and normalizes making mistakes, regardless of how students are performing. For example, if a student gets below 60% on an Assessment, then the results page says, “Keep trying, [Name]. You’ll improve with more practice!”

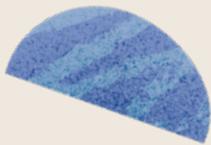
And when using Easel Activities, the assignment can be shared between a teacher and a student unlimited times, so students can understand that learning is more than just having “the right answer” and is instead a continuous process.





SECTION 04

*Research Citations



Easel by TpT was built with effective instructional practices in mind — based on a review of relevant peer-reviewed research, interviews with educators, and industry reports.

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