Tech4Learning Supporting Classroom Instruction That Works

In *Classroom Instruction that Works* (ASCD, 2001), Robert Marzano, Debra Pickering, and Jane Pollock examine decades of research and distill the results into nine teaching strategies that have a significant, positive impact on student learning. Tech4Learning's open-ended creativity tools can be applied in almost any grade and subject area to support these nine instructional methods.

Teaching Strategy	Supporting Use of Tech4Learning Tools
Identifying Similarities and Differences *Representing similarities and differences in graphic or symbolic form enhances students' understanding of and ability to use knowledge.*	Using **Pixie** or **Wixie**, students can complete comparing and sorting Activities from the library or use Venn Diagram templates to show similarities and differences on any topic. Using **Frames**, students can create digital stories that compare topics such as ancient cultures (Greece vs. Rome), scientific processes (mitosis vs. meiosis), and similar stories (myths and tall tales). Using **Share**, students can use templates to compare and sort or use Venn Diagram templates to show similarities and differences on any topic.
Summarizing and Note Taking *Summarizing involves deleting, substituting, and evaluating information, and requiring students to engage in detailed analysis of the content.*	Using **Pixie** or **Wixie**, students can use activities such as "5 W's" or "Parts of a Story" that ask them to summarize, use the text and paint tools to retell a story, or create comics and trading cards that summarize information. Using **Frames**, students can develop animations and digital stories that show the sequence of events in a story, historical event, or scientific process. Using **Share**, students can develop interactive timelines that showcase key events in a person's life or historical events.
Reinforcing effort and providing recognition *Keeping track of effort and recognizing progress helps students realize the importance of effort and changing their beliefs to emphasize effort.*	Using **Pixie** or **Wixie**, teachers can create newsletters and podcasts of notable classroom events and use templates to develop certificates that highlight student effort and recognize progress and achievement. Students can publish their work as podcasts, videos, and electronic books for an audience beyond the classroom. Using **Frames**, teachers and students can create podcasts and classroom newscasts of notable classroom events and achievements. Using **Share**, students can develop digital portfolios of learning progress that include reflections on personal and academic growth. Teachers can create newsletters and publish podcasts of notable classroom events and achievements.
Homework and Practice *Homework and practice provide students with an opportunity to extend and reinforce their learning beyond the classroom.*	Using **Share**, teachers can create classroom web sites with additional activities for practice and homework assignments.

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Nonlinguistic representations *Creating nonlinguistic representations of knowledge requires students to organize and elaborate on information.*	Using **Pixie** or **Wixie**, students can illustrate diagrams (life cycles, parts of cell) and visual representations of texts they are reading, create comics to represent content and perspective through pictures, and use the Stickers as virtual manipulatives to represent math concepts like counting, fractions, geometry, and graphing. Using **Frames**, students can use the illustration tools to design animated graphs, science processes, patterns, and chronology. Using **Share**, students can use tables and stickers to build pictographs and other visual graphs.
Cooperative Learning *Working and learning in heterogeneous groups builds academic and 21st-century skills.*	**Pixie/Wixie, Frames,** and **Share** - The open-ended nature of all Tech4Learning tools supports cooperative learning by providing a platform for students to build on their strengths as they divide into roles and show understanding and ideas through illustrations, writing, and audio. Students can apply all of these skills in individual work that can be combined into a group or class project.
Setting objectives and providing feedback *Goals should not be too specific and should be easily adaptable to students own objectives.*	Using **Share**, students can develop digital portfolios based on learning goals, including both student and teacher reflection.
Generating and testing hypotheses *Guiding students through generating and testing hypotheses and asking them to clearly explain their hypothesis and conclusions.*	Using **Pixie/Wixie**, **Frames**, and **Share**, students can clearly communicate their ideas, hypotheses, and conclusions using images, text, video, and narration.
Questions, cues, and advance organizers *Helping students use what they already know to enhance their learning on a topic.*	Using **Pixie** or **Wixie**, teachers and students can complete a KWL or KWHL Activity template on a topic they are studying.

Marzano, Robert J., Debra J. Pickering, and Jane E. Pollock. (2001). Classroom Instruction That Works. Association for Supervision and Curriculum Development, Alexandria, VA.

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