***Making Student Thinking and Learning Visible***

***CEA, Holland Christian High School***

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***Presented by***

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“We learn not from experience, but from reflecting on that experience.” John Dewey

“Children grow into the intellectual life around them.” Lev Vygotsky

**Q: What is visible thinking?**

A: ***Visible Thinking*** is an approach to teaching and learning focused on the development of deep understandings and *dispositional thinking***.** Visible thinking has three key practices at its core: thinking routines, the documentation of thinking, and reflection on that thinking. Visible thinking occurs whenever the focus of engagement is as much about the thinking as it is about the content, when that thinking is made public, and reflected upon.

**Q: Why would an educator be interested in using this approach?**

A: There are so many reasons. For one, ***Visible Thinking*** empowers teachers and students alike, to move beneath the surface of known answers. It opens incredible windows into not just what a is student is thinking about, but how they are thinking, how that thinking is changing, how that thinking leads to deeper understandings, and how that thinking can be used again in new situations. Visible Thinking opens up opportunities for students to represent their understandings in multiple ways, not only through verbal and written explanation. It is, therefore, a way to reach and teach all of our students.

**Q: What is meant by dispositional thinking?**

A: ***Dispositional Thinking*** includes knowing a *repertoire of thinking moves* as well as having the *inclination* and *the will* to use those moves with intention when encountering complex, real world problems. Subject matter learning can be seen as a vehicle for learning dispositional thinking. In that way, thinking is the outcome rather than a set of knowledge and facts about a discipline. Examples of dispositional thinking include, the disposition to reason, to consider different perspectives, to think with an open mind, to approach a new and complex problem with a growth mindset.

**Q: What is meant by a repertoire of thinking moves?**

A: ***Thinking moves*** lead to deep understandings and include, but are not limited to, wondering, observing and describing what’s there, comparing and connecting, reasoning with evidence, and considering different viewpoints, they are similar to thinking dispositions.

**Q: What are thinking routines?**

A: ***Thinking routines*** are flexible structures that support our thinking. They are characterized by being easy to remember and practical. They invite a wide range of thinking so that different viewpoints can be considered. They are well suited for individual and collaborative thinking. They make complex thinking accessible to everyone by providing scaffolds to complex thinking that can be routinized.

**Q: When might I use thinking routines?**

A: All the time! **Thinking Routines** have been found to be impactful across all grade levels and subject matter. The hard part of using thinking routines is figuring out the *kind of thinking* you want students to do as they approach a problem and then matching that kind thinking with the routine best suited for the development of that thinking move. For example, to support reasoning with evidence teachers often use, “What makes you say that?” or “Claim, Support, Detail.”

**Q: How can I get started?**

A: We suggest starting with two core routines. The first is **What makes you say that**? (WMYST) often considered the magic question, WMYST asked after a student answers a question or makes a statement requires deeper thinking about both the question and the response provided. It moves students past *known answer* responses, which is an essential element of thinking.

The second is **See/Think/Wonder.** By asking students what they **see or notice** when examining something (anything), what they **think** about it, and what they are **wondering**, focuses on three different thinking moves. **SEE** develops observation and description, **THINK** followed by WMYST develops reasoning, and **WONDER** allows for the development of curiosity.

**Q: What do you mean by known answer question?**

A: Well, if I ask you “How many pots of honey does Winnie-the-Pooh have? You can look in the text or at a picture and give me a number. There is little to think about, you just respond with a fact based answer. But, If I ask you instead, “In a world without bees, how might Winnie-the-Pooh survive?” Then we have something to learn and discuss, to think deeply about. Posing provocative questions rather than known answer questions is an important shift to make in a classroom culture of thinking, where thinking is valued, visible and actively promoted.

**Q: How can I find out more?**

A: There is information on Visible Thinking in many places on the internet and in a book. These are good starting points.

Artful Thinking Website: <http://www.pz.harvard.edu/at/>

Project Zero Website: <http://www.pz.harvard.edu/>

Ritchhart, R., Church, M., and Morrison, K. (2011). *Making thinking visible: How to promote engagement, understanding, and independence for All Learners.*Jossey-Bass.  San Francisco, CA.

Ritchhart, R., (2015). *Creating cultures of thinking: The 8 forces we must master to truly transform our schools.* Jossey-Bass.  San Francisco, CA.

Visible Thinking Website: <http://www.pz.harvard.edu/vt/visiblethinking_html_files/VisibleThinking1.html>