

## ***Evidence-Based Practices to Improve Student Learning***

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**Learning Activity: Getting Started**

*“Teachers must be researchers as they strive to understand their students and the effects of teaching. Research gives teachers new ways to think and new ideas to think about.”* Anita Woolfolk, researcher and professor in the College of Education at Ohio State University (Shaughnessy, 2004, p. 153).

**Learning Activity: Effects of the Teacher**

Influences from the Teacher	Size of Effect S – M – L -XL	Effect Size
Teacher subject knowledge		
Teacher credibility		
Teacher-student relationships		
Teacher education		
Teacher expectations		
Collective teacher efficacy		

**Learning Activity: Effects of Teaching**

Influences from Teaching Practices	Size of Effect S – M – L- XL	Effect Size
Repeated reading		
Vocabulary instruction		
Concept mapping		
Reciprocal teaching		
Formal discussions		
Similarities & differences		

Source: Fisher, D., Frey, N. & Hattie, J. (2017) *Visible Learning for Literacy*. Corwin Press

## Teacher Credibility

Source: Lassiter, C. 2018. *Credibility: How Teachers and Leaders Influence Student Achievement*

Teacher credibility has a massive impact on student achievement with an effect size of 0.90, and credibility is determined by the students, not colleagues or supervisors. Students, as it turns out, are quite adept at identifying quality teachers, and hence determining for themselves if they will fully engage with the teacher and the learning. In a 2004 study conducted by Irving, students were found to be excellent judges of teacher quality in U.S. mathematics classrooms. The students were able to accurately discriminate between expert, experienced and non-expert teachers. High ratings were not handed out lightly, and were aligned to judgments of reviewers at the National Board for Professional Standards. (Irving, 2004)

A credible teacher is one who has the ability to teach complex subject matter in a manner which students can access and understand, while having the ability to respond effectively to student questions and clear up student misconceptions. (Pogue & Ah Yun 2006).

Researchers agree that credibility is a mix of character and competence. Competence refers to the students' perceptions of the teacher's content knowledge and experience, as well as their expertise in the act of teaching. Character refers to the students' evaluation of the teacher's intentions in teaching, their moral drive, and overall goodness. In other words, is the teacher driven by concerns of student learning and is the teacher truly there to work in the best interests of young people. (McCroskey and Young 1981). Both competence and character are determined by students. McCroskey is credited for formulating three key dimensions of teacher credibility; trustworthiness, competence and dynamism. The fourth, immediacy, was added in later years by Fink. These four dimensions are accepted in the research community as the key factors which influence a student's determination of the credibility of a teacher.

### Trustworthiness

Building a climate of trust with a group of students requires that the teacher look at them as individuals and people. Teaching to the whole child; understanding their strengths, weaknesses, interests, and/or relationships with other students, teachers and loved ones contributes to building trust with them. Teachers wanting to build trust with students create a risk-free climate in their classrooms where errors are expected and welcomed as opportunities to learn. Students feel free to make mistakes without the fear of ridicule from peers or frustration from the teacher. This type of academic environment fosters high student engagement and respect for the teacher as an individual qualified to teach young people.

### Competence

Teacher competence not only includes strong subject knowledge, but also includes how well the teacher can teach the subject so that students learn and understand it. They are able to relate the content to students in ways that make it relevant and important. A student's assessment of the competence of the teacher is determined by how much they are learning and how confident they are that they are making progress towards a learning goal. Competent

teachers implement strong routines and classroom management techniques that foster productive classrooms and convey a sense of urgency and importance of student learning.

### **Dynamism**

Students appreciate classes where the teacher is passionate about the subject they are teaching, and this influences their assessment of the teacher's credibility in significant ways. A dynamic teacher knows their content, enjoys sharing it with students, and strives to excite students about what they are learning. Teachers get what they give-if they give passion, excitement, and a sense of urgency of learning something important, then students mirror that right back to the teacher. They will be excited, engaged and ready to learn something important.

### **Immediacy**

Teacher immediacy behaviors attempt to reduce the physical and psychological distance between teacher and students, and convey to students that they are approachable and accessible. Effective immediacy behaviors include coming from behind a podium and walking around the room to monitor and engage with each student. It means having direct eye contact and showing concern for students' learning. It also means actively listening when students are speaking by looking in their direction.

### **Learning Activity:**

#### **CONNECT / EXTEND / CHALLENGE**

*A routine for connecting new ideas to prior knowledge*

- **CONNECT:** How are the ideas and information presented *CONNECTED* to what you already knew?
  
- **EXTEND:** What new ideas did you get that *EXTENDED* or pushed your thinking in new directions?
  
- **CHALLENGE:** What is still *CHALLENGING* or confusing for you to get your mind around? What questions, wonderings or puzzles do you now have?

## Teacher-Student Relationships:

Source: Hattie, J. 2009. *Visible Learning*

In Hattie's review of the research on the impact of teacher relationships with students on student learning, he determined that they have a significant impact on the achievement of the students, but that teachers rarely recognize that this aspect of their jobs is so critically important. In one study by Russell Bishop in New Zealand, students, teachers, parents and principals were all asked about what influences student achievement the most. All groups except the teachers emphasized the importance of the relationship between the teacher and the students as key to achievement. The teachers noted the most influential factors to achievement as a function of the child's attitudes and dispositions, their home, and even the working conditions of the school. They expressed that if students were not learning, they were somehow deficient and the cause of their own lack of achievement.

According to Hattie, building relations with students implies agency, efficacy, and respect by the teacher for what the child brings to the class (from home, culture, peers) and allowing the experiences of the child to be recognized in the classroom. Further, developing relationships requires skill by the teacher-such as the skills of listening, empathy, caring and having positive regard for others.

In another study, (Cornelius-White, 2007) a strong correlation of 0.72 overall was found between "person-centered" teacher variables and all student outcomes- achievement and attitudes. The eight affective outcomes (person-centered variables) are shown in the chart below:

Variable	Effect Size
<b>Non-directivity</b>	0.75
<b>Warmth</b>	0.69
<b>Empathy</b>	0.68
<b>Encouragement of high order questioning</b>	0.60
<b>Encouraging learning</b>	0.48
<b>Adapting to differences</b>	0.40
<b>Genuineness</b>	0.29
<b>Learner-centered beliefs</b>	0.10

In classes with person-centered teachers, there is more engagement, more respect of self and others, there are fewer resistant behaviors, there is greater non-directivity (student initiated & student regulated activities) and there are higher achievement outcomes. The evidence also shows that students who do not want to come to school or who dislike school do so primarily because they dislike their teacher. In order to improve teacher-student relationships and reap the benefits, teachers must learn to demonstrate that they care for the learning of each student as a person, which sends a powerful message about purpose and priority. Teachers must also empathize with students- see their perspective, communicate it back to them so that they have valuable feedback to self-assess, feel safe, and learn to understand others as well as content.

**Learning Activity: Research Perspective**

Source: Goddard, R., Hoy, W. & Woolfolk-Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*. April 2004 p. 7

**Collective Efficacy Beliefs and Group Goal Attainment**

Perhaps the most compelling reason for the recent development of interest in perceived collective efficacy is the probable link between collective efficacy beliefs and group goal attainment. Within education, several studies have documented a strong link between perceived collective efficacy and differences in student achievement among schools (Bandura, 1993; Goddard, 2001; Goddard et al., 2000). Bandura demonstrated that the effect of perceived collective efficacy on student achievement was stronger than the direct link between SES and student achievement. Similarly, Goddard and his colleagues have shown that, even after controlling for students' prior achievement, race/ethnicity, SES, and gender, collective efficacy beliefs have stronger effects on student achievement than student race or SES. Teachers' beliefs about the collective capability of their faculty vary greatly among schools and are strongly linked to student achievement.

**Sources of Efficacy-Shaping Information for Groups**

 <p><b>Mastery Experiences</b></p> <p>“The perception that a performance has been successful raises efficacy beliefs.” If the success is attributed to controllable causes such as skill or effort efficacy beliefs are enhanced.</p> <p>Goddard, Hoy &amp; Hoy 2004 </p>	<p><b>Vicarious Experiences</b></p> <p>A vicarious experience is one in which the skill in question is modeled by someone else. Collective efficacy can be enhanced by observing successful teams with similar goals and challenges.</p>  <p>Goddard, Hoy &amp; Hoy 2004 </p>
<p><b>Social Persuasion</b></p> <p>Talks, professional development and feedback about achievement can inspire action, especially when coupled with models of success and positive direct experience.</p>  <p>Goddard, Hoy &amp; Hoy 2004 </p>	<p><b>Affective States</b></p> <p>The level of arousal, either of anxiety or excitement, adds to perceptions of capability or incompetence.</p>  <p>Goddard, Hoy &amp; Hoy 2004 </p>

## Learning Activity: The Three-Phase Model

<p><b>3 Phases of Learning</b></p>  <p><b>Surface:</b> Skill and Concept Development</p> <p><b>Deep:</b> Connections, relationships and schema to organize skills and concepts</p> <p><b>Transfer:</b> Student self-regulation to continue learning skills and content, applying knowledge to novel situations</p> <p>Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>	<p style="text-align: center;"><b>Surface, Deep &amp; Transfer</b></p> <p>...the strategies are differentially effective depending on whether the learning intention is surface learning (content), deep learning (relationships in and among contents) or the transfer of the skills to new situations or tasks.</p> <p>Hattie, J. &amp; Donoghue, G. (2016). Learning strategies: A synthesis and conceptual model. NPI in partnership with University of Queensland.</p>
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## Surface Learning Strategies

<p style="text-align: center;"><b>Repeated Reading</b></p> <p>Repeated reading is both a strategy to improve students' reading fluency and a strategy to help students consolidate new learning. This practice helps students gain confidence, speed and understanding of content. The strategy can be used with the whole class, small groups or partners. A few repeat reading strategies include partner reading with specific roles, choral reading in pairs or small groups, and echo reading, listening to a teacher or student reader and "echoing" that reader.</p>  <p>Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>	<p style="text-align: center;"><b>Direct Instruction</b></p> <p>Direct instruction refers to instructional approaches that are structured, sequenced, and led by teachers, and/or the presentation of academic content to students by teachers, such as in a lecture or demonstration. In other words, teachers are "directing" the instructional process or instruction is being "directed" at students.</p>  <p>Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>
<p style="text-align: center;"><b>Vocabulary Instruction</b></p> <p>Vocabulary knowledge is a strong predictor of reading comprehension. Vocabulary should be taught via 5 dimensions: <i>generalization</i> through definitional knowledge, <i>application</i> through correct usage, <i>breadth</i> through recall of words, <i>precision</i> through examples and non-examples, and <i>availability</i> through use of vocabulary</p>  <p>Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>	

## Deep Learning Strategies

<div data-bbox="240 289 781 365" style="border: 1px solid black; padding: 5px; text-align: center;"> <h3>Concept Mapping</h3> </div> <p>Concept maps and graphic organizers are visual representations of the relationships between and among ideas. The purpose is to help students take ownership with texts and concepts using a tool that facilitates summarization and visualization.</p> <div data-bbox="224 554 505 688"> </div> <p style="font-size: small;">Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>	<div data-bbox="867 302 1385 373" style="border: 1px solid black; padding: 5px; text-align: center;"> <h3>Reciprocal Teaching</h3> </div> <p>The emphasis is on deploying comprehension strategies to make meaning, engaging in self-questioning, and chunking texts into smaller passages with a small cooperative group of peers who co-construct meaning from text.</p> <div data-bbox="850 554 1122 688"> </div> <p style="font-size: small;">Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>
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## Transfer Learning Strategies:

<div data-bbox="256 978 732 1045" style="border: 1px solid black; padding: 5px; text-align: center;"> <h3>Synthesizing Across Texts</h3> </div> <p>The ability to adopt a critical approach to analyzing multiple texts is a mark of a student who is thinking conceptually.</p> <div data-bbox="240 1161 521 1308"> </div> <p style="font-size: small;">Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>	<div data-bbox="873 970 1349 1037" style="border: 1px solid black; padding: 5px; text-align: center;"> <h3>Formal Discussions</h3> </div> <p>As students transfer their knowledge at the conceptual level, they learn when to use the knowledge they have. This strategic use of knowledge quickens the pace of learning, and fosters the transformation of conceptual knowledge. Debates and Socratic seminars are good examples of formal discussions.</p> <div data-bbox="850 1236 1065 1350"> </div> <p style="font-size: small;">Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>
<div data-bbox="261 1455 721 1522" style="border: 1px solid black; padding: 5px; text-align: center;"> <h3>Similarities &amp; Differences</h3> </div> <p>The application of skills, knowledge and/or attitudes that were learned in one situation to another <b>learning</b> situation (Perkins, 1992). This is one of the most critical factors to transfer.</p> <div data-bbox="245 1654 526 1791"> </div> <p style="font-size: small;">Fisher, D., Frey, N. &amp; Hattie, J. (2016). <i>Visible Learning for Literacy</i>. Thousand Oaks, Corwin Press.</p>	

## Next Steps:

**3 ideas** you are taking away from the session today

**2 actions** you are considering for 2018

**1 challenge** you might have to overcome

## References

Darling-Hammond, L., & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.

Donohoo, J. (2017). *Collective Efficacy: How educators' beliefs impact student learning*. Corwin. Thousand Oaks.

Fisher, D., Frey, N. & Hattie, J. (2016). *Visible Learning for Literacy*. Thousand Oaks, Corwin Press.

Goddard, R., Hoy, W. & Woolfolk-Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*. April 2004

Goddard, R.D., Hoy, W.K., Woolfolk, A. (2000). Collective teacher efficacy: Its meaning, measure, and effect on student achievement. *American Education Research Journal*, 37(2), 479-507.

Goddard, R.D. (2002). A theoretical and empirical analysis of the measurement of collective efficacy: The development of a short form. *Educational and Psychological Measurement*.

Hattie, J. 2009. *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge. London and New York.

Hattie, J. (2012). *Visible learning for teachers*. Routledge. London and New York.

Hattie, J. & Donoghue, G. (2016). Learning strategies: A synthesis and conceptual model. NPJ in partnership with University of Queensland.

Marzano, R. (2001). *Classroom Instruction that Works*. ASCD. Alexandria, VA

Petty, G., (2009). *Evidence-Based Teaching: A Practical Approach*. Nelson Thornes: Cheltenham.

Protheroe, N. (2008). Teacher Efficacy: What Is It and Does It Matter? *Principal Magazine*, NASSP

Shaughnessy, M. (2004). An Interview with Anita Woolfolk: The Educational Psychology of Teacher Efficacy. *Educational Psychology Review*, Vol. 16, No.2, June 2004)