

# **Setting Clear Expectations for Learning**

A clear understanding of purpose empowers students to learn independently. The identification of key concepts enables teachers to confidently plan lesson steps with a well-defined vision. Charlotte Danielson (2011) asserts that teaching and learning are enhanced when "goals for learning are communicated clearly to students." Goals may be shared with students using focused purpose statements at the start of class. Facilitated question sessions and lesson specific assessment rubrics offer additional guidance and direction. Engagement levels are often raised when content includes examples that appeal to students' personal interests. The effective teacher builds a profile of student interests using conversations and paper-based or online interest surveys and self-evaluations. Students deserve the highest quality of communication from their teachers. Carefully chosen instructional language helps deliver a sharp, distinct message and focuses awareness on the chosen task. Subject matter experts are aware of common misconceptions in their domain of knowledge and promote understanding using the most effective metaphors and analogies. Many students better understand purpose when the teacher uses graphic organizers such as concept maps or know, want, learned (KWL) charts. All students, including those with special needs, may benefit from alternative media such as podcasts or an investment in additional explanation. Student progress is usefully measured using pre/post assessments that are based upon the requirements of instructional outcomes.

Effective teachers ensure that students understand expectations in readiness for learning new content. Clearly explained learning outcomes empower students to work confidently and independently. Kelly Harmon (2012) from the Marzano Center asserts that "effective teachers plan with the end in mind." Good instructional planning begins with an overview of conceptualized learning before tackling details such as classroom activities and assignments. Planning time is precious and finite. A structured planning procedure, such as following a template, ensures that critical steps are followed in order to create a meaningful sequence of learning for students. A carefully crafted scope and sequence gives focus and weight to the key concepts and breaks learning into manageable chunks that students are better able to process and consolidate.

# **Information Alignment**

Materials presented in this eBook align with the following:

### **Module Questions**

- How can teachers clarify the purpose of a lesson/unit?
- How can teachers link lessons to key concepts and student interests?
- How can teachers clearly communicate learning goals with students?

#### **Learning Outcomes**

- Explore when and how to clarify the purpose of lesson or unit.
- Investigate how to link lessons to key concepts and student interests.
- Examine ways clearly communicate learning goals with students.

### **Module Topic Focus**

- Communiating Purpose
  - Preassessment and Postassessment
  - Getting a pulse
- Designing Lessons
  - Utilizing interest surveys and self-evaluations
  - Understanding by Design (UbD) and WHERETO
  - Student Learning Objectives
- Clarifying Learning Goals
  - Using clear and concise language
  - Reaching all learners

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At time of publishing, all of the website information was accurate. Due to the nature of the internet, some of the website information may have changed or become unavailable. Please see the references section of the corresponding online module for the most up-to-date information.

# **Communicating Purpose**

The ability to set realistic and challenging student expectations is dependent upon a teacher's evaluation of student learning levels at the start of a unit of study. The effective teacher sets and communicates learning goals that motivate students to reach beyond their base levels of learning. Frey and Fisher (2010) assert that the purpose of each lesson should be made clear to students at the beginning of the class. Communication of intent may be achieved by a verbal explanation, visual display, or with facilitated discussion. Well-crafted purpose statements are associated with the following characteristics and advantages:

- expectations are specific;
- students understand expectations;
- students focus more on new learning and less on tasks;
- expectations, tasks, differentiation, and assessment are aligned;
- expectations are guided by words, such as persuade, analyze, or perform.

Two examples of purpose statements are shown below in Figure 1.

- 1. In our middle school science class we shall investigate the physical properties of gases and explain our findings using the particulate theory of matter.
- 2. In our middle school English class we shall read a number of newspaper articles on the theme of climate change and identify how relevant details are used to convey the central idea.

Figure 1: Examples of purpose statements.

#### **Preassessment and Postassessment**

McTighe and O'Connor (2005) point out that the degree of preparedness for a new topic varies within any teaching group. Some students may already possess required skills or have a grasp of key concepts. Others may need to boost skill levels or correct misconceptions that would otherwise block new learning. Diagnostic information enables a teacher to gain greater insight into what to teach. Students, in their daily interactions with peers, adults, books, and media, inevitably develop misconceptions that skew their interpretation of subject content. For example, historical timelines may be distorted by popular TV cartoons that portray stone age people living at the same time as dinosaurs. Serious misconceptions need to be corrected before teaching can proceed effectively. Preassessments can enable teachers to identify and rectify misconceptions.

Fontichiaro (2010) recommends the use of **Know, Want, Learned (KWL)** charts (see Figure 2) to work collaboratively with students in identifying what they already know, want to know, and have learned at the end of the topic.

What I <b>Know</b>	What I <b>Want to Know</b>	What I <b>Learned</b>
Too many burgers and	Why should I eat more	Animal fat can cause
fatty foods are not good	fruits and vegetables, and	cholesterol that blocks my
for us.	less fat?	arteries and overworks my
		heart.

Figure 2: A sample KWL chart.

Students can use KWL charts to record their individual learning experiences throughout the learning process. Teachers may use a KWL chart to identify common understandings from the class. Flawed assumptions or misconceptions about prior learning may be recognized when teachers and students work together using KWL charts.

Meaningful learning requires clear concepts, accessible language, and examples that relate to students' prior knowledge. According to Novak and Caňas (2008), "Concept maps are graphical tools for organizing and representing knowledge." Concepts, displayed as words or pictures, are enclosed in outlined shapes. Relationships between concepts are shown by connecting lines. Typically, the most inclusive concepts are positioned at the top or center; more specific concepts arranged underneath or around hierarchically. Cross-links between domains of a large map can illustrate the relationships between new and prior knowledge and between subject disciplines. An example of a concept map to illustrate the similarities and differences between subtractive color theory in art and additive color theory in physics classes is shown in Figure 3.

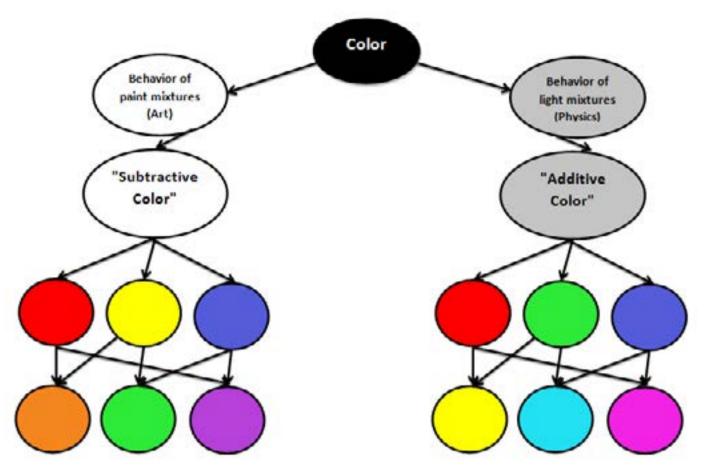


Figure 3: A sample concept map to show the subtractive and additive theories of color

**Entrance slips** or **exit slips** (or tickets) are used to quickly gather information from all students in a class at the beginning or end of a lesson. On these slips of paper, students write a short reflection or response. Often, the teacher poses a guiding question in order to focus students' brief explanations (All About Adult Literacy, n.d.).

An exchange of information between teachers and students may be facilitated with speed and efficiency using **online polling applications**. Teachers can readily gather information about students' backgrounds, prior learning, and interests. Tests or quizzes are administered quickly and with instant feedback to students. Survey software may be operated using personal computers, tablets, and smartphone devices. A few of the many available applications are shown in Figure 4 (Embi, 2012).

SurveyMonkey	Survey students' prior learning and interests/ activities. Conduct a simple multiple-choice quiz.
Polldaddy	Manage quizzes and gather filtered responses. Use HTML and video on iPad and iPhone.
Zoomerang	Manage online surveys and share quantifiable results through social media in real time.
PollSnack	Conduct online polls in a choice of languages. Display results in real-time.
Flisti	Gauge prior learning and share poll results through Facebook or Twitter.

Figure 4: Examples of online survey and poll tools.

**Google Form** enables users to singly or collaboratively create, format, and publish a poll with private or public access. The target audience may be contacted by email. Real-time responses are displayed in a graphical or spreadsheet format. A range of web-connected devices, including smartphones, may be used to communicate with the survey application.

**Interactive whiteboard** software packages offer additional options for formative assessment. Exit tickets may be pasted by students onto a virtual wall using the application Padlet and read in one sweep by the teacher.

Concept tests may be used to check understanding before and after the teaching of a new topic. The most effective concept tests are created with great attention to detail. Presentation to students may be quick and informal. Carnegie Mellon University Eberly Center for Teaching Excellence (n.d.-b) recommends concept tests that are comprised of between one and five multiple-choice questions. Typically, questions are displayed on a screen and students are given a minute to process the question. Students respond by raising their hands or displaying a color card to indicate a response. Better still, clicker devices may be used to communicate responses. The teacher is interested in an aggregate response from the class and does not make a record for individual students.

Audience response systems, in which students are connected with hand-held clickers, enable students to "answer questions posed by the instructor in real-time" (West, 2011). Teachers are able to receive and give academic feedback at frequent intervals during the course of a lesson. Teachers and students benefit from the real-time feedback that clickers provide. Teachers are able to redirect lesson plans in response to feedback on levels of student progress. Students use instant feedback as reassurance that they are on the right track or in order to seek help. Digital records identify individual student mastery of new concepts and provide evaluation of instructional materials and formative exercises.

Student progress may be measured by comparing the results of aligned preassessments and postassessments. Key questions can be posed before and after instruction takes place. Changes in class performance provide a measure of success. Wiggins (2013) suggests that teachers who are adept at or willing to learn a statistical method, or easier still a spreadsheet template, may even quantify progress in response to interventions

in terms of the effect size used in the acclaimed work of John Hattie. The International Training and Education Center for Health (2008) recommends the use of multiple choice questions as quick and efficient tools for teachers to measure and compare understanding of content before and after instruction. This type of test is designed to provide fast feedback for the teacher and may even be completed anonymously by students. The best style of question contains the necessary information and the answer requires a simple response.

#### **Getting a Pulse**

Fisher and Frey (2010) assert that "checking for understanding" is an essential component of engaged and responsive instruction. Regular data samples about individual student's ongoing progress enable teachers to make crucial instructional decisions. Students may need more scaffolding, greater academic challenge, or the provision of remediating support. Periodic checks throughout a lesson enable the teacher to check for understanding and adapt instructional plans. Key categories of information about students' progress include:

- new learning achieved;
- new learning not achieved;
- links with other subject areas;
- links between new and prior learning;
- gaps in essential background knowledge;
- misconceptions that block new understanding.

Experienced teachers are aware of common misconceptions that may impede learning. The identification and resolution of cognitive conflicts help remove obstructions to understanding and lead to more effective learning. The learning of mathematics and science is especially prone to cognitive misconceptions.

- Younger students commonly believe that multiplication always increases the magnitude of a number (Count On, n.d.). This misconception leads to difficulties when introducing multiplication by fractions. A simple remedy may be to promote the word of, and avoid the word times. Half of eight offers a more intuitive route to the correct answer than half times eight.
- Students often believe, based on experience of touching objects, and reinforced by language used commonly by adults, that in similar environments a piece of metal will be colder than a piece of wood. The true reason for the observed sensation is that metals are more efficient at conducting away heat from the person's hand.

Subject-specific misconceptions occur in all disciplines. The knowledgeable, specialist teacher is alert to common mistakes and prepared with remedies.

## **Designing Lessons**

Effective lesson design builds on a knowledge of existing student knowledge. Many theories exist to facilitate the development of meaningful lesson plans that can be applied to maximize the student learning experience.

The Center for Research on Learning and Teaching proposes three phases of lesson planning beginning with the identification of clear learning outcomes, and proceeding to mindfully select learning activities and employing strategies to check for successful learning and understanding (Milkova, n.d.).

**Clear learning objectives** are the first step of any lesson plan and should be ranked in order of priority. The most important concepts, ideas, or skills may be emphasized by real time adaptation of instruction when activities consume more time than their planned allocation.

Student interest and engagement are stimulated by creative **introductions** to new topics. Pictures, video clips, anecdotes, newspaper articles, and tactile experiences are a few examples of interesting opening activities.

Rigorous introductions include strategies to gauge students' **preknowledge** and identify cognitive misconceptions. Information gleaned from quick polls or question and response sessions enables the teacher to emphasize some skills and concepts and skip others.

Specific **learning activities** form the greatest part of the lesson. A range of activities widens appeal to students with varied learning preferences. Metaphors, images, examples, videos, and hands-on activities are some ways to promote engagement.

The effective teacher does not assume that transference of learning is successful. **Checks for successful learning** may be achieved with formative assessment. Using prepared deepening knowledge questions, survey checks, sample quiz questions, and think-pair-share activities are a few of the techniques that provide confirmation of learning. The transference of each learning objective needs to be checked.

Successful TV serial dramas utilize summaries of recent scenes and samples of future episodes. The same technique works well for lessons. An interactive **summary** of main points covered reinforces learning and identifies concepts that are still not clear.

A realistic **timeline** is essential for the efficient teaching of planned learning outcomes. An optional reinforcement activity fosters deeper learning for students who complete tasks quickly.

Cunningham (2009) asserts that "few factors are as vital to teaching success as having well-designed lessons." All teachers, including highly experienced practitioners, perform a better service for students with the benefit of clearly scripted plans. Many variations of templates are used in lesson planning. Cunningham suggests a sequence for planning and conducting lessons.

- **Introduce** the lesson by sharing a purpose statement.
- Build a **foundation** with links to previous learning and clarification of learning objectives and vocabulary.
- Activate the brain with probing questions that target students' background knowledge.
- Present new information using lecture, audio-visual, readings, and online resources.
- **Correct misconceptions** with the help of sample problems and scenarios.
- Collaborate in small groups to clarify learning.
- **Practice independently** with the option of help when needed.
- Close the lesson by recapping main ideas and checking for transference.

### **Utilizing Interest Surveys and Self-evaluations**

The engagement of student interest in learning may be easier than many teachers anticipate (Dill, 2012). Interest inventories, administered at the beginning of the year and periodically thereafter, enable the teacher to incorporate engaging topics and examples that appeal to students' interests, hobbies, and cultural backgrounds. Students' interests may be elicited using questions that focus on personal preferences such as favorite books, TV shows, hobbies and sports, and cultural features such as family background. Unsurprisingly, once consulted, students will expect to see some of their personal interests referred to in the classroom. Standardized testing and curriculum-based teaching mandate what should be taught. Within these parameters the creative teacher is able to use examples and problems that include an element of student interest. For example, the Pennsylvania Department of Education eligible content for third grade

mathematics "M03.A-T.1.1.4: Order a set of whole numbers from least to greatest or greatest to least" could be practiced using the weights of a range of animals, historical data for sports team scores, heights of local mountains, or other examples that are known to appeal to class members. Better still, choice could be extended to students.

### **Understanding by Design (UbD) and WHERETO**

Jay McTighe and Grant Wiggins (2011) present the Understanding by Design (UbD) framework as a means to "focus curriculum and teaching on the development and deepening of student understanding and transfer of learning." UbD seeks to guide teachers in good lesson planning rather than mandate an inflexible formula. UbD planning is described in three stages:

- identify desired results;
- determine assessment evidence;
- plan learning experiences and instruction.

Flexibility does not extend to discounting alignment between the three stages and relevant curriculum standards.

**Stage one** defines what students should "know, understand, and be able to do." Teachers select and prioritize a set of learning goals that derive from relevant content standards. Added focus is provided from essential questions.

**Stage two** identifies the process and assessment tools needed to verify that stage one goals are achieved. McTighe and Wiggins specify assessment as daily practice using performance tasks, quizzes, teacher observations, work samples, and peer-assessments. Performance tasks may be designed to measure achievement at the end of a unit of study and include the requirement to apply new learning in authentic and unfamiliar situations. Alignment checks between the first two stages ensure that all goals, including those that are challenging for a teacher to measure, are assessed.

**Stage three** addresses the goals chosen in stage one with appropriate tasks and activities. Well-chosen learning experiences include opportunities for students to exercise higher academic skills such as making meaning, transference of learning to unfamiliar situations, and drawing inferences.

Grant Wiggins (2005) suggests seven core principles of design (see Figure 5), represented by the acronym **WHERETO**, that promote the effectiveness of an understanding-based approach to instruction.

W	Where the unit is going and where students are beginning.
Н	Hook and hold student interest.
E	Equip students to experience and explore key ideas.
R	Rethink and revise opportunities for students.
E	<b>Evaluation</b> of progress opportunities for students.
T	<b>Tailor</b> instruction to the abilities and interests of learners.
О	Organize instruction to maximize engagement and learning.

Figure 5: Seven core principles of lesson design.

### **Student Learning Objectives**

Educators use a variety of terms, often inconsistently, that are synonymous with the phrase student learning objectives. Examples include: student goals, learning outcomes, student objectives, and instructional objectives. The Pennsylvania Department of Education (PDE) generally uses the term instructional outcomes. Instructional outcomes are used to describe three categories of learning; understanding, skills, and dispositions. A taxonomy of thinking skills, such as those developed by Bloom and Webb, may be used to further subdivide types of learning and match any instructional outcome to a skill level. Low level thinking skills (LOTS), such as simple recall of knowledge, are the easiest to teach and assess. Higher level thinking skills (HOTS), such as the abilities to analyze, synthesize, and create are more demanding to teach and assess, but are more transferrable as authentic skills for life. Any program of study is likely to reflect a range of cognitive levels. Dispositions such as curiosity and integrity are different from understanding and skills in that they are encouraged, modeled, and reinforced, but not formally assessed.

The University of South Carolina Center for Teaching Excellence (n.d.) maintains that a meaningful connection between teaching and learning is achieved through the skillful framing of student learning objectives. Student learning objectives guide faculty to select suitable content and best pedagogy, create appropriate assessments, and communicate clear expectations to students. Student learning objectives give students clarity about expectations for learning and steps to systematically master the content.

Robert Marzano (2014) asserts the necessity of constructing goals that represent "different levels of complexity" and proposes a taxonomy (see Figure 6) composed of four levels.

Goal	Student is able to:
Retrieval	recognize information and follow procedures
Comprehension	discern key aspects of knowledge

Analysis	infer understanding beyond the content of the lesson
Utilization	use new knowledge to address authentic issues

Figure 6: Four level taxonomy of learning goals.

Marzano also proposes four types of goals that teachers may create in order to promote the utilization of knowledge by students. The four categories of goals are:

- decision-making;
- problem-solving;
- experimenting; and
- investigating.

The intent of learning goals is driven by key verbs such as "decide, solve, experiment, and research."

# **Clarifying Learning Goals**

Prior to commencing with the main phase of a lesson, time is needed to ensure that students comprehend the intention of a learning outcome (Moss & Brookhart, 2009). The effective sharing of learning outcomes with students requires explanation and checks for understanding. Most students, if asked, will nod to say they understand. Often, they do not really have a grasp of what is required. In fact, they may focus on operational issues such as which paper or color to use. For example, the PDE 4th grade standard "7.1.4.A: Describe how common geographic tools are used to organize and interpret information about people, places and environment" could be used to derive a learning outcome such as *illustrate maps using symbols and keys*. Students would need to understand the essential words symbol and key by referring to examples that are familiar. The best examples bridge the new with the familiar. For instance, students could relate to symbolic icons from their tablet menu or perhaps a treasure map from a familiar pirate story. Then they could confidently begin a task to map part of the school or their street. The skilled teacher deliberately searches for potential misunderstandings and encourages questions from students.

The Carnegie Mellon University Eberly Center for Teaching Excellence (n.d.-a) recognizes and describes four advantages to be derived from the clear articulation of learning objectives. Clear learning objectives help students:

- 1. differentiate between types of knowledge;
- 2. focus on targeted skills;
- 3. develop independent learning; and
- 4. acquire metacognitive skills.

Two **types of knowledge** are identified as **declarative** knowledge and **procedural** knowledge. Declarative knowledge includes "facts and concepts that can be stated or declared." Naming longest rivers, describing Inuit community life, or explaining how volcanoes evolve are classified as declarative knowledge. Procedural knowledge involves knowing how and when to apply skills, procedures, and theories. The abilities to measure using a ruler, adjust the timing of an automobile engine, and paint with water colors are examples of procedural knowledge. Associated with the performance of the skill is the ability to decide when the skills should be applied. Teachers commonly observe learning situations in which students are able to recall facts and describe concepts but struggle with their application in unfamiliar or authentic situations. Clearly defined learning objectives unambiguously guide the student toward intended learning experiences and appropriate levels of challenge. Experienced teachers are aware that unchallenged students may readily gravitate to a comfort level at which they choose to interpret imprecise learning goals in terms of less demanding categories of knowledge.

Targeted skills may be clearly articulated within learning objectives. Students tend to make more progress when confronted with an appropriate level of challenge and directed with sufficient emphasis and frequency to a specific learning criterion. The length of time that students spend in deliberate practice is a reliable predictor of successful learning. For example, students who read a work of literature in the context of specific goals are more likely to pay close attention to relevant features as they study the text.

**Independent learning** is enabled when students are clear about objectives. The achievement of self-directed learning is a result of a metacognitive process in which students begin by building knowledge and skills, then transition to more autonomous risk-taking and creativity. The effective teacher equips students with clear objectives and achieves a balance between support and autonomy. Advanced or gifted learners respond well to the challenge and opportunity of greater autonomy. **Metacognitive skills** are essential for self-directed learning. Planning the approach to a new assignment requires evaluation of prior knowledge and skills and the ability to self-monitor progress in order to adjust strategies as needed.

**SMART** goals are applicable to students when they approach learning and to teachers when they plan for instruction or engage in professional development. SMART goals use five characteristics (see Figure 7.) to describe accomplishments, not activities.

- S Specificity is ensured with qualifying questions such as who, what, when, where, why and how.
- M Measurability needs descriptors that define goal-attainment.
- A Attainable goals are described in manageable steps that motivate and measure progress.
- R Realistic goals are within the capabilities of people involved.
- T Timeframes add urgency, motivation, and accountability.



Figure 7: Five characteristics of SMART goals.

Bilash (2011) asserts that "the purpose of setting goals is for those goals to be achieved." SMART criteria increase the likelihood of achieving goals by ensuring that they are reasonable and described in motivating and manageable steps.

#### **Using Clear and Concise Language**

According to Charlotte Danielson, the use of clear and concise language is an essential element in instruction (2011). Effective teachers recognize that the modeling of exemplary communication and the instruction of the content are each important skills to master. All teachers endeavor to provide invaluable examples of language that help students expand their vocabulary, learn how to express ideas accurately, and use correct grammar and syntax. Creative presentations of new concepts include rich and accurate language and an imaginative use of metaphor and analogy. Attuned teachers present students with new, age-appropriate vocabulary and plan opportunities to practice and use words in discussions and assignments.

Ashman (2014) notes that "explanation is at the heart of what we teachers do." The skill of crafting clear explanations is first learned and forever honed. Testing the efficacy of an explanation requires a more sophisticated strategy than simply asking for students' approval. Meaningful feedback may be elicited from students when teachers ask questions that require an understanding of recent learning in order to formulate a correct answer. Ashman reflects upon two aspects of evaluating the clarity of classroom explanations using peer-evaluation. A colleague from another subject discipline at the secondary level or a specialist at the elementary level is able to evaluate the clarity and accessibility of an explanation to a target audience of students. Conversely, a fellow subject specialist is able to comment upon the accuracy and depth of explanation that is used to convey a concept.

The University of Pittsburgh Department of Communication asserts that teachers' language should be "free of any significant grammatical and semantic error" and "simple, direct, and clear" (Language, n.d.). Good classroom language avoids vagueness, clutter, and clichés. Respectful teachers employ language that is audience appropriate. Gender-neutral nouns and pronouns acknowledge boys and girls equally. Most students already enjoy ample opportunities to practice casual language outside of school. Some students are reliant upon teachers as the only role models for correct usage of formal language. Professional teachers model a rich variety of correct and formal language in the classroom. Proficiency in spoken and written language is an important skill for life and can influence job opportunities in the future. Formal language does not need to be dull. Vivid language creates "mental images of objects, actions, or occasions." Rhythm is another feature of engaging speech. For example, when preparing for a partnered activity, the teacher may remind students that we listen to our partner, we help our partner, and we respect our partner.

### **Reaching All Learners**

Inquiry-based learning offers the appeal of active and creative learning experiences that transcend the basic acquisition of knowledge and skills (Stephenson, n.d.). The process of inquiry learning uses preexisting frameworks of each learner in order to construct new understanding. Problem-based, project-based, and design-based learning strategies provide the conceptual and organizational frameworks needed to retrieve and apply prior and newly acquired knowledge.

A **problem-based** curriculum is based upon a set of carefully designed problems. The learner acquires "critical knowledge, problem solving proficiency, self-directed learning strategies, and team participation skills" (Uden & Beaumont, 2006). Many students have experienced the remember it today, forget it tomorrow scenario of cramming knowledge for tests. The digital age, with its provision of knowledge at the touch of a smartphone, has redirected learning priorities. Problem-based learning (PBL) is built upon the premise that students effectively learn both subject-based content and thinking skills through the experience of problem solving.

**Podcasts** give students access to audio and video presentations from their own teacher or from a variety of global sources. Some schools and educational organizations post and make freely available their best resources. Vincent (2009) adds that "students can use them [podcasts] at their desks, on field trips, in the library, or at home." Students are able to make podcasts using little more than a laptop or smartphone and can "create a product to share with a potentially world-wide audience." The prospect of seeing their podcast stored in iTunes U alongside some big name contributors is a strong motivational factor for students. Podcasts make excellent resources for students who are visually or hearing impaired and may experience challenge in following verbal explanations delivered to the class.

Response to Instruction and Intervention (RtII) is a proactive initiative that enables schools to identify and support all students who are challenged by academic or behavior issues. The process of universal screening seeks to identify any students with learning disabilities and intervenes with an appropriate level of support. Tiered Interventions (see Figure 8) are needs based. The Pennsylvania Department of Education

(2010) uses a three-tier model of assessment and support.

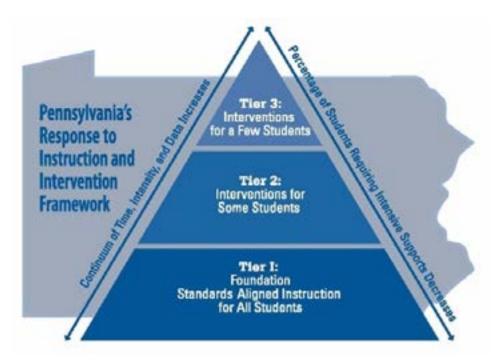


Figure 8: RtII diagram.

In the RTII process, all students are screened three to five times a year using benchmark assessments. No intervention beyond core instruction is needed for the majority (80-90%) of students who fit into Tier One. Twice monthly checks are made on the 5-15% of Tier Two students who need intervention for academic or behavioral performance. The 1-5% of students in Tier Three are provided with intensive intervention and are monitored weekly.

## Conclusion

Most students, especially from the younger grades, are eager to begin work and forge ahead once they grasp the intention of a task. Effective teachers empower students to control their own learning once the purpose and direction of a lesson are established and understood. The communication of purpose—by identifying key concepts and learning goals—enables students to consider new ideas in the context of prior learning. Teachers who successfully communicate select learning experiences that appeal to students' interests and sequences instruction with appropriate pace and levels of challenge. Designing lessons that include inquiry-based activities and collaborative experiences are especially appealing to most students. Utilizing design templates, such as UbD or SLOs, can guide appropriate planning. Student enthusiasm is fuelled when teachers introduce topics using vibrant language, stories and metaphors, and illustrative examples. Reassurance that students are progressing optimally is obtained by regularly monitoring students' work and adjusting instruction to either lend support or step up the level of challenge. Preparation time is a precious commodity for all teachers. The adoption of a suitable planning template saves time and ensures that lesson details are built upon a strong foundation of learning outcomes.

## References

- All About Adolescent Literacy. (n.d.). Classroom strategies. Retrieved May 22, 2013, from http://www.adlit.org/strategy\_library/
- Ashman, G. (2014). Classroom practice master the mysterious art of explanation. Times Educational Supplement. Retrieved May 6, 2014, from http://www.tes.co.uk/article.aspx?storycode=6392633
- Bilash, O. (2011). SMART goal setting. Best of Bilash. Retrieved April 25, 2014, from http://www.educ.ualberta.ca/staff/olenka.Bilash/best%20of%20bilash/SMART%20goals.html
- Carnegie Mellon University Eberly Center for Teaching Excellence. (n.d.-a). The educational value of course-level learning objectives/outcomes. Retrieved April 24, 2014, from https://www.cmu.edu/teaching/resources/Teaching/CourseDesign/Objectives/CourseLearningObjectivesValue.pdf
- Carnegie Mellon University Eberly Center for Teaching Excellence. (n.d.-b). Whys & hows of assessment: Using concept tests. Retrieved June 8, 2013, from http://www.cmu.edu/teaching/assessment/assesslearning/concepTests.html
- Count On. (n.d.). Misconceptions in mathematics. Retrieved April 3, 2014, from http://www.counton.org/resources/misconceptions
- Cunningham, G. (2009). Lesson plans and unit plans: The basis for instruction. In The new teacher's companion (chap. 7). Retrieved April 3, 2014, from http://www.ascd.org/publications/books/109051/chapters/Lesson-Plans-and-Unit-Plans@-The-Basis-for-Instruction.aspx
- Danielson, C. (2011). The framework for teaching evaluation instrument. Princeton, NJ: The Danielson Group.
- Dill, M. (2012). Incorporate students' interests into your classroom using interest inventories. Bright Hub Education. Retrieved April 4, 2014, from http://www.brighthubeducation.com/teaching-methods-tips/17677-using-student-interest-inventories/
- Embi, M. A. (2012). Web 2.0 polling and survey tools. Retrieved May 20, 2014, from University of Malaysia, Centre for Academic Advancement Web site: http://www.scribd.com/embeds/87624844/content?start\_page=1&view\_mode=list&access\_key=key-2oolvhiak5cya5r9kys
- Fisher, D., & Frey, N. (2010). Questioning to check for understanding. In Guided instruction: How to develop confident and successful learners (chap 2). Retrieved April 3, 2014, from http://www.ascd.org/publications/books/111017/chapters/Questioning-to-Check-for-Understanding.aspx
- Fontichiaro, K. (2010). Nudging toward inquiry: Awakening and building upon prior knowledge. School Library Monthly, 27(1), 12–15. Retrieved June 3, 2013, from http://mtwpresearch.wikispaces.com/file/view/Awakening.pdf
- Frey, N., & Fisher, D. (2010). Purpose: The foundation for high-quality teaching. Principal Leadership, 11(October). Retrieved March 21, 2014, from http://www.nassp.org/Content.aspx?topic=Purpose\_The\_Foundation\_for\_High\_Quality\_Teaching
- Harmon, K. (2012, September 6). Planning for effective instruction: Best practices [Web log post]. Retrieved May 12, 2014, from http://www.marzanocenter.com/blog/article/planning-for-effective-instruction-best-practices-part-1
- International Training and Education Center for Health. (2008). Guidelines for pre- and post-testing. Retrieved April 17, 2014, from http://www.go2itech.org/resources/technical-implementation-guides/TIG2.GuidelinesTesting.pdf/view
- Language. (n.d.). University of Pittsburgh Department of Communication. Retrieved May 14, 2014, from http://www.comm.pitt.edu/language
- Marzano, R. (2014). Designing & teaching learning goals & objectives. Marzano Research Laboratory. Retrieved April 25, 2014, from http://www.marzanoresearch.com/resources/tips/dtlgo\_tips\_archive
- McTighe, J., & O'Connor, K. (2005). Seven practices for effective learning. Educational Leadership, 63(3), 10–17. Retrieved April 17, 2014, from http://www.ascd.org/publications/educational-leadership/nov05/vol63/num03/ Seven-Practices-for-Effective-Learning.aspx

- McTighe, J., & Wiggins, G. (2011). Understanding by design framework. Retrieved April 18, 2014, from http://www.ascd.org/ASCD/pdf/siteASCD/publications/UbD\_WhitePaper0312.pdf
- Milkova, S. (n.d.). Strategies for effective lesson planning. Retrieved April 15, 2014, from University of Michigan, Center for Research on Learning and Teaching Web site: http://www.crlt.umich.edu/gsis/p2\_5
- Moss, C., & Brookhart, S. (2009). Leveling the playing field: Sharing learning targets and criteria for success. In Advancing formative assessment in every classroom (chap. 2). Retrieved April 16, 2014, from http://www.ascd.org/publications/books/109031/chapters/Leveling-the-Playing-Field@-Sharing-Learning-Targets-and-Criteria-for-Success.aspx
- Novak, J. D., & Caňas, A. J. (2008). The theory underlying concept maps and how to construct and use them. Institute for Human and Machine Cognition. Retrieved April 16, 2014, from http://cmap.ihmc.us/publications/researchpapers/theorycmaps/theoryunderlyingconceptmaps. htm
- Pennsylvania Department of Education. (2010). Response to instruction and intervention (RtII): An introduction. Retrieved April 8, 2013, from http://pattan.net-website.s3.amazonaws.com/files/materials/publications/docs/RtIIAnIntro.pdf
- Stephenson, N. (n.d.). Introduction to inquiry based learning. Retrieved May 20, 2014, from http://www.teachinquiry.com/index/Introduction. html
- Uden, L., & Beaumont, C. (2006). What is problem based learning. In Technology and problem-based learning (p. 33). Hershey, PA: Information Science Pub.
- University of South Carolina Center for Teaching Excellence. (n.d.). Learning outcomes. Retrieved March 20, 2013, from http://www.sc.edu/cte/learningoutcomes
- Vincent, T. (2009). Podcasting. Learning in Hand. Retrieved April 25, 2013, from http://learninginhand.com/podcasting
- West, D. M. (2011). Using technology to personalize learning and assess students in real-time. Center for Technology Innovation at Brookings. Retrieved March 21, 2014, from http://net.educause.edu/ir/library/pdf/CSD6160.pdf
- Wiggins, G. (2005). Understanding by design. Retrieved April 5, 2014, from http://www.grantwiggins.org/documents/UbDQuikvue1005.pdf
- Wiggins, G. (2013). A unique approach to pre and post-assessments. TeachThought. Retrieved April 17, 2014, from http://www.teachthought.com/learning/curriculum/a-unique-approach-to-pre-and-post-assessments