Georgia Department of Education
Teacher Keys Effectiveness System Fact Sheets

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"Making Education Work for All Georgians"

Table of Contents

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Fact Sheet #1: TKES

THE TEACHER KEYS EFFECTIVENESS SYSTEM

As part of the Race to the Top Initiative (RT3), Georgia will continue to introduce the Teacher Keys Effectiveness System (TKES), a common evaluation system that will allow the state to ensure consistency and comparability across districts, based on a common definition of teacher effectiveness.[1] The Teacher Keys Effectiveness System consists of multiple components which contribute to an overall Teacher Effectiveness Measure (TEM). These components include Teacher Assessment on Performance Standards (TAPS), Surveys of Instructional Practice, and Student Growth and Academic Achievement.

TEACHER ASSESSMENT ON PERFORMANCE STANDARDS

The TAPS component of TKES provides evaluators with a qualitative, rubrics-based evaluation method by which they can measure teacher performance related to quality performance standards. TAPS offers a balance between structure and flexibility. It is prescriptive in that it defines common purposes and expectations, thereby guiding effective instructional practice. At the same time, it provides flexibility by allowing for creativity and individual teacher initiative. The overarching goal of TKES is to support the continuous growth and development of each teacher by monitoring, analyzing, and applying pertinent data compiled within a system of meaningful feedback.

Performance Indicators

Performance indicators provide suggested examples of observable, tangible behaviors for each standard. That is, the performance indicators are examples of the types of performance that may occur if a standard is being successfully met. The list of performance indicators is not exhaustive, is not intended to be prescriptive, and it is not intended to be a checklist. Further, all teachers are not expected to demonstrate each performance indicator. An example of performance indicators for Standard 1 (Professional Knowledge) includes: The teacher:

1.1 Addresses appropriate curriculum standards and integrates key content elements.

1.2 Implements students' use of higher-level thinking skills in instruction.

1.3 Demonstrates ability to link present content with past and future learning experiences, other subject areas, and real-world experiences and applications.

Domains, Standards, and Indicators

TAPS uses a three-tiered approach to define the expectations for teacher performance consisting of five domains, ten standards, and multiple performance indicators. The five domains and ten performance standards are:

PLANNING
1. Professional Knowledge The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.
2. Instructional Planning The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.
INSTRUCTIONAL DELIVERY
3. Instructional Strategies The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.
4. Differentiated Instruction The teacher challenges and supports students' learning by providing appropriate content and developing skills which address individual learning differences.

ASSESSMENT OF AND FOR LEARNING
5. Assessment Strategies The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.
6. Assessment Uses The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.
LEARNING ENVIRONMENT
7. Positive Learning Environment The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.
8. Academically Challenging Environment The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.
PROFESSIONALISM & COMMUNICATION
9. Professionalism The teacher exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.
10. Communication The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

Performance Appraisal Rubrics

Teachers will be rated on the performance standards using performance appraisal rubrics. The performance rubric is a behavioral summary scale that guides evaluators in assessing *how well* a standard is performed. It states the measure of performance expected of teachers and provides a qualitative description of performance at each level. In some instances, quantitative terms are included to augment the qualitative description. The resulting performance appraisal rubric provides a clearly delineated step-wise progression, moving from highest to lowest levels of performance. Each level is intended to be qualitatively superior to all lower levels. The description provided in the *Proficient* level of the performance appraisal rubric is the actual performance standard, thus *Proficient* is the expected level of performance. Teachers who earn an *Exemplary* rating must meet the requirements for the *Proficient* level and go beyond it. The performance appraisal rubric for Performance Standard 1 (Professional Knowledge) is shown below:

Exemplary* *In addition to meeting the requirements for Proficient…*	**Proficient** *Proficient is the expected level of performance.*	**Needs Development**	**Ineffective**
The teacher continually demonstrates extensive content and pedagogical knowledge, enriches the curriculum, and guides others in enriching the curriculum. *(Teachers rated as exemplary continually seek ways to serve as role models or teacher leaders.)*	The teacher consistently demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences	The teacher inconsistently demonstrates understanding of curriculum, subject content, pedagogical knowledge, and student needs, **or** lacks fluidity in using the knowledge in practice.	The teacher inadequately demonstrates understanding of curriculum, subject content, pedagogical knowledge and student needs, **or** does not use the knowledge in practice.

Documenting Performance

Self-Assessment: As a requirement of the TAPS, teachers will conduct a self-assessment at the beginning of the school year.

Observations: Evaluators are required to conduct two formal observations and four walkthroughs/ frequent brief observations of teachers evaluated by the TKES. All formal observations must be at least 30 minutes in duration. Walkthroughs should be a minimum of ten minutes and should focus on a limited number of teacher performance standards and/or indicators. Walkthroughs will inform the *Formative Assessment Report Form*. Evaluators will record their observation notes on the *Formative Assessment Report Form*. A conference with the teacher after the formal

observations is optional, but written feedback through the electronic platform is required.

Documentation: The teacher is responsible for submitting documentation as requested by the evaluator for consideration in the formative assessment, either prior to or after the actual classroom observation. Teachers may organize the material as they see fit and they are not required to use the *Documentation Cover Sheet* provided in the *TKES Handbook*. The emphasis should be on the quality of work, not the quantity of material presented. Evaluators will make notes pertaining to the documentation on *the Formative Assessment Report Form*.

Rating Performance

Formative Assessment: Evaluators will make decisions about performance on the 10 performance standards based on observation, documentation, and anecdotal information. Using this information, they will then provide a formative assessment rating on each of the 10 performance standards using the performance appraisal rubrics. The evaluator must ensure the teacher receives feedback in some appropriate manner. Both formative assessments and four walkthroughs/frequent brief observations must be completed prior to the summative evaluation.

Summative Assessment: After collecting information throughout the assessment period, evaluators will provide a summative assessment of a teacher's performance. Evaluators will use the *Summative Assessment Report Form* to evaluate performance on each standard using the four-category rating scale. By receiving a rating on each individual standard, the teacher is provided with a diagnostic profile of his/her performance for the evaluation cycle. In making judgments for the summative assessment on each of the ten performance standards, the evaluator should determine where the "**totality of the evidence and most consistent practice**" exists, based on observations and the documentation of practice and process provided by the teacher. In addition to the ten separate ratings, the teachers will receive an overall TAPS point score. *Exemplary* ratings are worth 3 points, *Proficient* ratings are worth 2 points, and *Needs Development* ratings are worth 1 point. *Ineffective* ratings have no point value. The TAPS rating will be appropriately scaled to represent a specific percentage of the Teacher Effectiveness Measure. The TAPS Summative Assessment should be completed by May.

STUDENT GROWTH AND ACADEMIC ACHIEVEMENT

The second component of the Teacher Keys Evaluation System is Student Growth and Academic Achievement. For teachers of tested subjects, this component consists of a student growth percentile/value-added measure. For teachers of non-tested subjects, this component consists of GaDOE-approved Student Learning Objectives (SLOs) utilizing district-identified achievement growth measures.

Student Learning Objectives

District-determined SLOs using SMART criteria are content-specific, grade level learning objectives that are measureable, focused on growth in student learning, and aligned to curriculum standards. Districts must submit each SLO for GaDOE approval before local teachers begin implementation of their SLO plans.

Within the first few weeks of the instructional period, teachers administer a pre-assessment to all students they teach. Using the district developed SLOs, teachers will use their students' pre-assessment scores, along with other diagnostic information, and complete a *Student Learning Objective Form*. Teachers should meet with their local evaluators to review SLO plans and obtain approval for implementation. Before approving the plan, principals should review and assess the plan's rigor and appropriateness. This review/approval process should be completed within 20 school days following the pre-assessment.

The next part of the process is recursive in that individual teachers create and implement strategies

and monitor progress toward the SLOs, making adjustments to the teaching and learning strategies, as required.

Teachers will administer the post-assessment and assess the students' growth toward the SLO. By May 15, they must submit their completed *Student Learning Objective Form* to their evaluator. Evaluators will review the pre-assessment and post-assessment data presented by the teacher to determine the teacher's level of performance using the rubric for the SLOs as *Exemplary, Proficient, Needs Development,* and *Ineffective*. They will assign an end-of-year rating using an evaluation rubric with the following levels: *Exemplary, Proficient, Needs Development*, and *Ineffective.*

SURVEYS OF INSTRUCTIONAL PRACTICE

The third component of the Teacher Keys Evaluation System consists of student surveys of instructional practice. The surveys to be included in the program ask students to report on items they have directly experienced. There are three different versions of the student survey (grades 3-5, 6-8, and 9-12) designed to reflect developmental differences in students' ability to provide useful feedback regarding their teacher. All surveys are to be completed anonymously to promote honest feedback. Each survey contains questions that address four teacher performance standards in the TAPS component of the evaluation system: Instructional Strategies, Differentiated Instruction, Positive Learning Environment, and Academically Challenging Environment. Students will answer questions that address teacher performance standards to which they can respond from personal experience in the classroom.

Surveys will only be administered to students assigned to the teacher of record. Teachers who teach self-contained classes (e.g., elementary teachers, special education teachers) will have all the students in their class surveyed. Departmentalized teachers (e.g., middle and high school teachers, elementary PE and music teachers) will have designated classes of students surveyed. The local school site administrator will determine the selection of the classes.

District and site administrators will also select a time frame period during the academic year in which to administer the surveys. An open survey window will be available for schools to select a time frame that does not interfere with testing or other uses of computer labs, etc. The multiple survey options will accommodate courses taught only during first semester, only during second semester, all year, or for shorter segments within the academic year. Furthermore, surveys may be administered multiple times during the school year at the district's discretion.

Teachers of record will not be involved in administering the survey to their own students; rather, a certified specialist (e.g., media specialist, instructional technology specialist) will administer the survey in a common media center or computer lab, if at all possible. All surveys will be administered using a vendor-hosted electronic platform. The surveys will be accessed through a web-based portal.

[1] Georgia Department of Education (n.d.) Great Teachers and Leaders. Retrieved from http://public.doe.k12.ga.us/DMGeTAPSument.aspx/RT3%20GREAT%20TEACHERS%20AND%20LEADERS.pdf

Fact Sheet #2: Why Evaluate?

THE VALUE OF EVALUATION

The core of education is teaching and learning, and the teaching-learning connection works best when we have effective teachers working with every student every day.[1] Teacher effectiveness has proven time after time to be the most influential school-related factor in student achievement. If teacher quality is the pillar of the success of education, then it logically follows that a robust teacher evaluation system should be in place, since the purpose of evaluation is to "recognize, cultivate, and develop good teaching."[2]Stronge and Tucker stated:[3]

> Without capable, high-quality teachers in America's classrooms, no educational reform effort can possibly succeed. Without high quality evaluation systems, we cannot know if we have high-quality teachers. Thus, a well-designed and properly implemented teacher evaluation system is essential in the delivery of effective educational programs and in school improvement.

Among the many roles assumed by the principals, one of their most important responsibilities is to evaluate teacher performance. This is important for several reasons: (1) the improvement of the instructional program, (2) the improvement of student performance, and (3) the improvement of professional development activities and opportunities for teachers.[4] Evaluation is a tool, not the outcome — it serves as a systematic tool that enables data-driven personnel and school improvement decisions.

The Purposes of Teacher Evaluation

There are many ways to conceptualize the purposes of teacher evaluation. For example, Wheeler and Scriven identified 14 different purposes, including hiring, assigning, performance evaluation, pre-tenured retention/termination, granting tenure or a continuing contract, post-tenure retention/termination, promotion/career ladder, salary decisions, reduction in force, retirement exemption, licensing/recognition, self-assessment, and mentoring assignment.[5]

The Personnel Evaluation Standards of the Joint Committee on Standards for Educational Evaluation identified ten distinct purposes for teacher evaluation:[6]

- Evaluate entry-leave educators before certifying or licensing them to teach.
- Identify promising job candidates.
- Assess candidates' qualifications to carry out particular assignments.
- Guide hiring decisions.
- Assess performance of educators for continuing contract and promotion decisions.
- Determine recognition and awards for meritorious contributions.
- Assist faculty and administrators in identifying strengths and needs for improvement.
- Plan meaningful staff development activities.
- Develop remediation goals and activities.
- When necessary, support fair, valid, and legal decisions for termination.

The literature succinctly summarizes two major purposes of teacher evaluation—professional growth and accountability.[7]

The Benefits of Teacher Evaluation

The benefits of an effective teacher evaluation system are numerous and well documented. The process of teacher evaluation can be valuable in several ways including involving teachers in professional development efforts by identifying areas in need of improvement, improving instruction school-wide, and assessing the effectiveness of classroom teachers. Stronge summarized the advantages of a quality teacher evaluation system:[8]

- Joint involvement of administrators and teachers in the evaluation process.
- Inclusion of entire professional staff.
- Rationally linked school goals and individual responsibilities.

- Clearly established objectives for the teacher.
- A basis for an objective evaluation.
- Efficiently channeled, system-wide resources.
- Manageable and meaningful training for evaluators, who are also instructional leaders.
- Appropriate systematic opportunities for improvement for all professional employees.
- More school accountability through meaningful inclusion of all professional employees.
- A legally defensible evaluation system in terms of its treatment of teachers and others.

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[1]Stronge, J. H. (2006). Teacher evaluation and school improvement. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 1-23). Thousand Oaks, CA: Corwin.

[2] Danielson, C. (2001). New trends in teacher evaluation.*Educational Leadership,* 12-15. p. 13

[3]Stronge, J. H., & Tucker, P. D. (2003). Handbook on teacher evaluation: Assessing and improving performance. Larchmont, NY: Eye on Education. p. 3

[4]Shinkfield, A. J. (1994). Principal and peer evaluation of teachers for professional development. Journal of Personnel Evaluation in Education, 8, 251-266.

[5]Wheeler, P. H., &Scriven, M. (2006).Building the foundation. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 27-53). Thousand Oaks, CA: Corwin.

[6]Joint Committee on Standards for Educational Evaluation. (2009). *The personnel evaluation standards: How to assess systems of evaluating educators* (2nd ed.). Thousand Oaks, CA: Corwin. pp. 6-7

[7]Danielson, C., & McGreal, T. L. (2000). *Teacher evaluation: To enhance professional practice.* Alexandria, VA: Association for Supervision and Curriculum Development.

[8]Stronge, J. H. (2006). p. 19

Fact Sheet #3 - Performance Standard 1: Professional Knowledge

PROFESSIONAL KNOWLEDGE

The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.

Classroom teaching is a complex activity that demands teachers possess substantial thinking skills and a solid knowledge base. Knowledge of subject matter is a prerequisite for effective classroom instruction. A teacher's understanding of subject facts, concepts, principles, methodology, and important generalizations determines his/her pedagogical thinking and decision-making. Furthermore, according to research, the professional knowledge that is essential to be an effective teacher extends well beyond knowledge of subject matter to encompass the factors identified in the following table.[1]

Key elements of Professional Knowledge

Knowledge Area	***Focus***
• Subject-matter knowledge	Content to teach
• Pedagogical knowledge	How to teach
• Curricular knowledge	What to teach
• Learner knowledge	Whom to teach
• Cultural/community knowledge	Sensitivity to settings where one teaches

Content knowledge, the disciplinary understanding of the subject taught, exerts a significant influence on teachers' classroom behavior. Various studies suggest that teachers with stronger content knowledge are more likely to use practices that can help students construct and internalize knowledge, such as:

- Asking higher-level questions.
- Encouraging students to explore alternative explanations.
- Involving students in more inquiry-based learning.
- Allowing more student-directed activities.
- Engaging students in the lessons.[2]

Many researchers have explored the impact of teachers' content knowledge on student achievement. They have measured teachers' content knowledge through tallying coursework taken by the teachers and administering questionnaires or classroom observations. The literature has been consistent in the findings about the positive association between teacher content knowledge and students' learning at all grade levels, particularly in mathematics.[3]

Research has found that when a teacher's subject-matter knowledge is insecure (for instance, when a teacher is teaching unfamiliar areas of curriculum) his/her ability to give appropriate and effective explanations in the classroom is limited, rendering them ineffective.[4] Teachers who lack subject-matter knowledge usually lack confidence in the classroom, which in turn, has significant impact on their planning and teaching. For instance, they are more likely to adopt closed and constrained pedagogy – developing the pedagogy to a more discursive style, keeping a tighter rein on what is taught, avoiding asking open-ended questions and conducting discussion sessions, and being more authoritative in what they plan and do in the classroom.

Effective teaching requires teachers to have not only sufficient knowledge in their own fields, but also an interdisciplinary understanding that ranges across multiple branches of human knowledge. The real world does not completely organize itself according to the disciplines or the traditional school subjects. Many phenomena cannot be adequately understood solely from one disciplinary perspective.[5] Making connections across subject areas is an effective way to engage students in challenging, integrated, and exploratory learning around personal and social concerns that appeal to them. In addition, the

integration of disciplines can prompt students to learn to think critically and develop a common core of knowledge necessary for success.[6] Effective teachers use a wide variety of sources and make meaningful connections to sustain students' inquiry across disciplines.

Effective teaching resides not simply in the knowledge a teacher has accrued, but also in how this knowledge is translated into student learning in classrooms.[7]For instance, teachers who are highly proficient in mathematics or writing will help others learn mathematics or writing only if they are able to use their own knowledge to enact learning activities that are appropriate to students. Therefore, a teacher's subject matter knowledge and pedagogical knowledge are complementary and interdependent. These two knowledge categories can be synthesized by what Shulman called "pedagogical content knowledge," which he defined as "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction."[8]

The professional knowledge of effective teachers reaches beyond merely the knowledge of subject matter (content knowledge) and instructional strategies (pedagogical knowledge); indeed, professional knowledge also encompasses an understanding of students and environmental contexts.[9] Effective teachers often use the knowledge of their students (for instance, knowledge of students' learning ability, prior achievement, cultural background, and personal interests) to decide what to teach and how to teach. Based on this expansive knowledge, teachers can anticipate the conceptions, misconceptions, and possible difficulties their students are likely to encounter while learning particular content.

Research has found that an effective teacher:

- Possesses a great deal of knowledge about the content and curriculum areas taught, and knows how the material fits into the educational landscape.[10]
- Is certified in his or her field, resulting in higher levels of student achievement on standardized tests.[11]
- Determines and teaches the essential knowledge and skills through effective instruction.[12]
- Cares about students as individuals and makes them feel valued.[13]
- Adapts teaching to address student learning styles.[14]
- Acknowledges his or her perspective and is open to hearing their students' worldviews.[15]
- Is culturally competent.[16]
- Seeks to know about the cultures and communities from which students come.[17]

Sample performance indicators for the professional knowledge of teachers

1.1 Addresses appropriate curriculum standards and integrates key content elements.
1.2 Implements students' use of higher-level thinking skills in instruction.
1.3 Demonstrates ability to link present content with past and future learning experiences, other subject areas, and real-world experiences and applications.
1.4 Demonstrates accurate, deep, and current knowledge of subject matter.
1.5 Exhibits pedagogical skills relevant to the subject area(s) taught and best practices based on current research.
1.6 Bases instruction on goals that reflect high expectations for all students and a clear understanding of the curriculum.
1.7 Displays an understanding of the intellectual, social, emotional, and physical development of the age group.

Sample student evidence that the teacher has met the criteria for proficiency

- Observe (through surveys and conversations) that teachers help them understand rather than judge them for misconceptions.
- Grasp the meaning as well as the facts of the content they are learning.
- Recognize and discuss issues related to the content area.
- Acknowledge the teacher's efforts to make the curriculum challenging, relevant, and rewarding for all learners.
- Perform tasks that are varied and appropriate for all learning levels.
- Engage in learning activities that lead to most students achieving standards and some exceeding them.
- Engage in projects, essays, and research that relate to content areas to real life experiences.
- Explain how major concepts in content areas relate.

Sample conference prompts

- When did you have to teach a complex concept the year? How did you ensure that all students understood and grasped the concept that you were teaching?
- How did you develop your unit plans and decide what to include or exclude from the unit of study?
- How have you worked to expand your understanding of the issues in your content area this year?
- What collaborative planning experiences have you participated in this year?
- How have you worked with your colleagues this year to ensure vertical alignment?
- How have you worked with your colleagues this year to ensure that there has been consistency and fairness across the course in different classrooms?
- What are your expectations and the appropriate learning outcomes for the grade level/subject matter you teach? How did the results at the end of the year compare with the expectations you held and the results you anticipated at the beginning of the year?
- What are some ways that you added relevance to the curriculum and helped students make real-world connections?

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Teacher Self-Assessment Checklist **Performance Standard 1: Professional Knowledge**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Subject-matter Knowledge	Have accurate, cohesive, and in-depth subject-matter knowledge.				
	Possess a coherent body of knowledge about the facts, concepts, principles, methodology, and important generalization of the subject areas taught.				
	Make interdisciplinary connections across subject areas to engage students in challenging, integrated, and exploratory learning.				
Curricular Knowledge	Know the school district curriculum guides and benchmarks.				
	Understand the scope and sequence of learning goals and objectives.				
	Develop appropriate curriculum guides and set up outlines for unit plans.				
	Be able to perceive the gap between planned curriculum and received curriculum.				
Pedagogical Knowledge	Choose the most effective pedagogical strategies that can best communicate subject content.				
	Design and organize learning activities that are appropriate for learners of different interests and abilities to explore the topics, problems, or issues.				
	Exhibit instructional practices that are supported by current research.				
Learner Knowledge	Have an understanding of special education and gifted education.				
	Relate subject-matter to the personal and social concerns that appeal to the learners.				
	Know students as individuals regarding their learning abilities, prior achievement, cultural background, and personal interests.				
	Anticipate the conceptions, misconceptions, and possible difficulties the students are likely to have when learning particular content area.				

Fact Sheet #4 - Performance Standard 2: Instructional Planning

INSTRUCTIONAL PLANNING

The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.

In general terms, planning means the "act or process of making or carrying out plans."[1] Instructional planning is a process of the teacher using appropriate curricula, instructional strategies, resources and data during the planning process to address the diverse needs of students. A teacher's teaching begins before he or she steps into the classroom. Prior to each lesson, unit, semester, or school year, teachers plan the content of instruction, select teaching materials, design learning activities and grouping methods, decide on the pacing and allocation of instructional time, and identify learning opportunities for students. Teachers use state or district curriculum standards, school district curriculum goals and objectives, and learning outcomes developed by professional organizations to plot the scope and sequence of subject topics. Teachers also apply their knowledge of research-based practices to plan strategies and techniques for delivering instruction. The most informative source for all of the instructional planning is the student.

Effective teachers also evaluate the quality of available resources when designing a unit or lesson. They use criteria such as appropriateness for grade level, alignment to national, state, or local standards, accuracy of information, the time allowed for the lesson or unit, and the learning benefits that come from using the resource.[2]Effective teachers maximize the instructional benefits of resources while minimizing time allocated to less relevant or unnecessary material.

Research indicates the following key questions that teachers need to consider for effective instructional planning:

1) What should be taught?
2) How should it be taught?
3) How should instruction and student learning be assessed?

What should be taught? Effective student learning requires a progressive and coherent set of learning standards. Effective teachers excel in delineating the intended outcomes of each lesson and describing the behaviors or actions that students should be able to perform after participating in the learning activities. Effective teachers conceive a lesson along two dimensions simultaneously:

1) The teacher's own actions, thoughts, and habits.
2) The students' thinking and understanding of the content.

Thus, effective teachers not only plan what to teach, but more importantly, they plan for whom they are going to teach. They exert effort to reach beyond their comfort zone of disciplinary thinking and actions to incorporate their students' learning preferences.

How Should It Be Taught? Once the learning objectives are developed, evidence suggests that expert teachers are more competent in translating their instructional plans into actions than non-expert teachers.[3] Additionally, effective teachers follow the predefined plan while remaining open to changes and continuously adjusting their instruction based on student needs. Further, expert teachers anticipate the difficulties students might encounter while learning the content of the lesson. They consider students' thinking in order to assess the success of the lesson plan and then modify their instruction promptly.[4] Having a lesson plan cannot ensure that the actual lesson will be implemented as prescribed. The classroom is full of ebbs and flows. Consequently, teachers need to be opportunistic

and tap into their pedagogical and content resources in a fluid and flexible manner in order to proceed smoothly.[5]

How Should Instruction and Student Learning Be Assessed? When the learning objectives are set up, in addition to aligning activities to them, teachers also need to link the assessment plan to the learning objectives. Alignment of curriculum, learning activities, and assessment is integral to any quality instructional design. This type of alignment is referred to as "Opportunity to Learn." Before the actual instruction starts, teachers need to decide upon valid and reliable assessment techniques that elicit student learning data and judge the success of the instructional plan. Additionally, teachers should communicate to their students what they are expected to achieve and inform them how they will be assessed after participating in the learning activities.

Teachers must consider a variety of factors when planning instruction, including how to pace the actual delivery in the classroom. The feasibility of a particular lesson largely depends on student ability and variation, content goals and mandated objectives, time and material resources, and so forth. Many of these factors present teachers with constraints that are beyond their immediate control. For example, there is a prescribed, fixed amount of time each day in which formal instruction may occur. Typically, hours of the day are chunked into units that are dedicated to the study of a certain subject or discipline as determined by a legislative body, school board, or a school administrator. Within those chunks of time, however, teachers traditionally have enjoyed a great deal of flexibility and autonomy. That is, what they did with class time was largely up to them. Over the past decade that flexibility has begun to wane – a by-product of high-stakes testing. Teachers report a narrowing of the curriculum that focuses on tested items and breadth of content while sacrificing depth.[6]

Many school districts require teachers to follow strict pacing guides, which prescribe how much time to spend on certain lessons or concepts. Pacing guides are intended to be instruments that teachers use to measure the amount of instructional time devoted to certain topics in light of the total content that must be taught. Properly used, pacing guides are tools to steer daily instructional decisions within the context of the entire curriculum. Used improperly, however, pacing guides unduly restrict the proper ebb and flow of the classroom and restrict the instructional pace regardless of student ability. On this topic, one researcher stated:

> Pacing guides are not an inherently bad idea. Their effects depend on their design and how district and school leaders use them. The best pacing guides emphasize curriculum guidance instead of prescriptive pacing. These guides focus on central ideas and provide links to exemplary curriculum material, lessons, and instructional strategies.[7]

Thus, pacing is an important component of instructional planning. It allows teachers to see the curriculum in its entirety and avoid the trap of overemphasizing one area of content at the expense of others. Because instructional time with students is fixed, teachers must value class time.

In the process of classroom instruction, a teacher needs to make decisions regarding how to pace learning activities and how to allocate instructional time on a regular basis. Anderson, Evertson, and Brophy concluded that "at some point during the lesson, the teacher must make a fundamental decision about whether the group as a whole can or cannot meet the objectives of a lesson."[8] When should a teacher decide to move on to the next goals? Should the teacher wait until every single student in the class masters the new content or skill? Should the teacher steer the

class to new directions as long as half of the class attained the learning goal?

Ideally, students are sensitive to the difficulty of the content and objectives to be learned and will allocate their study time accordingly – they will devote more time to more difficult learning. However, Perrin, Banks and Dargue found that students' control of pace is not perfect and they do not always increase study sufficiently for more difficult learning objectives.[9] An optimum learning approach is to create adaptive learning strategies that diagnose student learning needs on specific learning areas, develop learning activities that conform to the evolving skill level of the student, and adjust time/pace on a content area according to student performance. This purposeful way of scheduling and rescheduling the learning progress, with flexible incorporation of additional practice and review, can significantly increase the study time allocated to challenging content areas and increase student learning outcomes.

One important misconception that many teachers hold about learning is to perceive it as a mechanical process of information being transferred from textbooks to students who acquire it through listening, reading, and memorization.[10] However, in reality, the way learners interact with new information is influenced by their experiences and prior knowledge and beliefs, and they often fail to remember, understand, and apply new information that has no connection to them and no context for acquiring meaning.[11] Materials and equipment serve as a supportive rather than a central role in the curriculum and instruction.[12] That is, the school district's core curricula and the teachers' instructional strategies should not be dictated by textbooks. On one hand, materials aligned with curriculum and instruction is indispensable for each student's academic success. Effective teaching is much more than the acting out of scripts written by the publishers of textbooks and tests.[13] Students are frequently conditioned in their approach to learning by experience in teacher-centered, textbook-driven classrooms. Hill stated:

> Traditional textbooks are fact- rather than process-oriented. They stress "what" instead of "how" and "why"…when teachers allow textbooks to dominate instruction they are unlikely to meet today's educational demands for critical thinking, problem-solving, skill-building, and inquiry about the real world.[14]

In addition, some topics are too specific to be included in textbooks and some are too new to be included in textbooks. To enrich students' learning, teachers need to be well-informed and resourceful investigators and expect their students to cultivate the same qualities.[15] Furthermore, to prepare students for the world outside the school, teachers need to "develop ways for them to learn from information as they will encounter in the real-life situations, information that is not predigested, carefully selected, or logically organized."[16]

Planning is preparation for action. Without prior thought and planning, ongoing review, and adjustment as the plan unfolds in practice, and reflection on what worked, what didn't, and how to improve, teachers seldom improve practice. Indeed, planning is an essential tool for effective teaching. Teaching is a complex activity that involves careful preparation and planning, both for short-term learning purposes and for long-term learning purposes. Misulis commented that "regardless of the teaching model and methods used, effective instruction begins with careful, thorough, and organized planning on the part of the teacher."[17]

Comparatively, novice teachers have more difficulty responding to individual student needs in their planning. They tend to develop a "one-size fits all" approach to planning, whereas more experienced teachers build in differentiation and

contingencies at different points during the lesson.[18] To further assist with meeting individual needs, effective teachers typically plan a blend of whole-group, small-group, and individualized instruction.

As an illustration, Haynie examined the planning practices of ten effective and ten less effective teachers whose effectiveness was identified by their students' achievement gains. He found that most top teachers collaborated with one or more teachers while planning lessons; however, the less effective teachers reported they always planned lessons alone. The top teachers also were not restricted by pacing guides, and reached beyond prepared resources to plan their own activities, while the less effective teachers used resources already prepared. In addition, the top teachers used student assessment data in the planning of instruction. Based on data drawn from frequent assessments, they made data-driven decisions about what goals and objectives to address.[19]

Allington and Johnston also found that the instruction of effective teachers was multi-sourced.[20] Exemplary teachers were inclined to stretch the reading and writing beyond the textbooks. Although effective teachers did often dip into prescribed textbooks, they hardly ever followed traditional plans for these materials. For instance, while planning for a lesson in social science, the effective teachers usually used historical fiction, biography, information on the Internet and in magazines, and other nontraditional content sources.
Borko and Livingston investigated the pedagogical expertise in instructional planning by comparing novice teachers and experienced teachers.[21] They found that novices showed more time-consuming, less efficient planning. While implementing the planned lessons, their attempts to be responsive to students were likely to lead them away from scripted lesson plans. The novice teachers were less successful in translating their instructional plans into actions than expert teachers. The expert teachers were better able to predict where in a course the students were likely to have problems and predict misconceptions the students would have and areas of learning these misconceptions were likely to affect.

Various research studies have found that effective teachers tend to have the following behaviors while making planning decisions:

- Construct a blueprint of how to address the curriculum during the instructional time.[22]
- Collaborate with one or more teachers while planning, rather than plan lessons alone.[23]
- Facilitate planning units in advance to make intra- and interdisciplinary connections.[24]
- Use student assessment data to plan what goals and objectives to address.[25]
- Plan for the context of the lesson to help students relate, organize, and make knowledge become a part of students' long-term memory.[26]
- Sequence material to promote student's cognitive and developmental growth.[27]
- Use knowledge of available resources to determine what resources they need to acquire or develop.[28]
- Plan instruction in a multi-sourced manner.[29]
- Take into account the abilities of their students and the students' strengths and weaknesses as well as their interest level.[30]

Sample performance indicators for the professional knowledge of teachers

2.1 Analyzes and uses student learning data to inform planning.

2.2 Develops plans that are clear, logical, sequential, and integrated across the curriculum (e.g., long-term goals, lesson plans, and syllabi).

2.3 Plans instruction effectively for content mastery, pacing, and transitions.

2.4 Plans for instruction to meet the needs of all students.

2.5 Aligns and connects lesson objectives to state and local school district curricula and standards, and student learning needs.

2.6 Develops appropriate course, unit, and daily plans, and is able to adapt plans when needed.

Sample student evidence that the teacher has met the criteria for proficiency

- See a logical sequence and purpose for most instruction and activities.
- Describe a variety of activities the teacher uses to engage students in meeting specific standards.
- Learn from assessment tasks that clearly measure progress and mastery of standards.
- Engage in learning activities that lead to achieving and exceeding standards.
- Understand teacher's reasons behind activities, organization of learning, and assessments.
- Understand the connections between CCGPS/GPS and classroom assessments.
- Experience assessments using format, language, and content aligned with district, state, and national mandated tests.
- Demonstrate the use of higher-order thinking skills on assessments.

Sample conference prompts

What process or rationale do you use in selecting standards for lessons or units?

- How do you engage students in planning, learning, and assessing their learning?
- How do you plan for assessment of student progress and mastery of standards?
- In what ways have you worked with colleagues toward deeper assessments and use of assessment data to plan?
- How do you build high-quality, demanding assessments?
- How do you plan for the different needs of your students?

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Teacher Self-Assessment Checklist **Performance Standard 2: Instructional Planning**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Learning Objectives	Set clear, specific, and unambiguous learning objectives to communicate intended learning outcomes.				
	Identify learning objectives that focus on high cognitive levels of student learning (e.g., analysis, synthesis, evaluation, and creation).				
	Use learning objective to design instructional strategies and organize learning activities.				
	Encourage students to objectively evaluate their progress against the benchmark.				
Differentiated Planning	Use student assessment and diagnostic data in instructional planning.				
	Plan a learner-centered environment that allows for student choice, flexibility, and independence.				
	Use a variety of grouping arrangements and ensure high mobility within the classroom.				
	Plan advanced learning (e.g., enrichment, curriculum compacting) for gifted learners.				
	Plan remediated learning for struggling students.				
Alignment with Curriculum	Construct a blueprint of how to address the curriculum during the instructional time at the beginning of the school year or semester.				
	Plan appropriate long-range learning and developmental goals for students.				
	Align daily lesson plans with district curriculum guides.				
	Sequencing learning materials and activities logically and develop appropriate timelines for the completion of instructional units of study.				
	Identify and develop assessment strategies to determine the extent that intended learning has occurred.				
Resources and Materials	Integrate other content areas when appropriate.				
	Use materials from a wide variety of resources for lesson planning.				
	Determine available technology resources and integrate technology into instruction when it is value-added.				
	Evaluate the quality of available resources when designing a unit or lesson.				
Team Planning	Collaborate with other teachers to make intra- and inter-disciplinary connections.				

Fact Sheet #5 - Performance Standard 3: Instructional Strategies

INSTRUCTIONAL STRATEGIES

The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.

Instruction is a process in which teachers apply a repertoire of instructional strategies to communicate and interact with students around academic content, and to support student engagement. An array of studies reveals that teachers who have similar professional qualifications (e.g., degree, certification, years of experience) instruct differently in their classroom and vary significantly in their ability to help students grow academically.[1]However, the primary difference between effective and ineffective teachers does not lie in the amount of knowledge they have about disciplinary content,[2] the type of certificate they hold,[3] the highest degree they earned,[4] or the years they have been in the teaching profession.[5] Rather, the difference lies more fundamentally in the manner in which they deliver their knowledge and skills while interacting with the students in their classrooms.[6] Numerous studies reveal that schools and teachers with the same resources yield strikingly different results in terms of student learning. Thus, it seems clear that these differences depend on how the resources are used by those who work in instruction.[7]

Based on a synthesis of over 500,000 studies of student achievement, Hattie suggested that teachers account for 30% of student achievement variance, with the rest attributable to school, family, and student variables.[8] It is estimated that only about 3% of the contribution teachers make to student learning is associated with teacher experience, educational level, certification status, and other readily observable characteristics. The remaining 97% of teachers' effects on student achievement is associated with intangible aspects of teacher quality that defy easy measurement, such as classroom practices.[9] Thus, teachers' practices inside classrooms have not only statistical significance, but also practical significance in terms of student learning. Numerous studies and literature reviews have begun to focus upon identifying the classroom practices of effective teachers.[10] Figure 3 summarizes the findings of two literature reviews conducted by Hattie on a range of variables relating to student achievement.[11] The elements highlighted below are descriptors of classroom-level instructional practices and their corresponding effect sizes.

An essential aspect of effective instruction that helps build and sustain student engagement is relevance of the instruction. Making instruction relevant to real-world problems is among the most powerful instructional practices a teacher can use to increase student learning.[12] This kind of instruction allows students to explore, inquire, and meaningfully construct knowledge of real problems that are relevant to their lives. Moreover, students are motivated and engaged when their learning is authentic, especially when the real-world tasks performed have personalized results. Research indicates that students have higher achievement when the focus of instruction is on meaningful conceptualization, especially when it emphasizes their own knowledge of the world.[13]

Selected research-supported key elements of effective instructional delivery include:

Note: This list is not intended to be a comprehensive set of research-based instructional strategies, but rather an indicative set of those strategies for which there exists solid evidence of success.

Key Elements of Effective Instructional Delivery

Key Elements	Descriptions
Differentiation	The teacher uses multiple instructional materials, activities, strategies, and assessment techniques to meet students' needs and maximize the learning of all students.[14]
Variety	The teacher implements a variety of classroom techniques and strategies that enhance student motivation and decrease discipline problems.[15]
Cognitive challenge	The teacher provides in-depth explanations of academic content and covers higher-order concepts and skills thoroughly.[16]
Student engagement	The teacher is supportive and persistent in keeping students on task and encouraging them to actively integrate new information with prior learning.[17]
Recognizing patterns of student learning and adjusting	The teacher recognizes the schema or pattern in student learning, makes inferences about the situation (such as identifying the difficulties the students are having), and promptly adjusts the materials, learning activities, and assessment techniques to maximize student learning.[18]
Questioning	The teacher uses multiples levels (particularly higher cognitive levels) of questioning to stimulate student thinking and monitor student learning.[19]
Relevance	The learning process and the outcomes of learning have authentic relevance with students' life.[20]

Students arrive at school with a variety of backgrounds, interests, and abilities. This means that a one-size-fits-all approach to instruction is ineffective, probably counterproductive, and perhaps even unethical. If the goal of instruction is to provide an opportunity for all students to learn, then the instructional practices that teachers choose to employ in the classroom matter and matter greatly.[21] In an analysis of educational productivity in the United States and other countries, teachers' classroom instruction was identified as one of the most significant variables having a great effect on student affective, behavioral, and cognitive outcomes.[22]For instance, the instructional practice of reinforcement has a magnitude of 1.17 standard deviations on educational outcomes. The effect of cues, engagement, and corrective feedback is approximately one standard deviation each. Personalized and adaptive instruction, tutoring, and diagnostic-prescriptive methods also have strong effects on student learning, with effect sizes* of .57 (i.e., 22 percentile gain), .45 (i.e., 17 percentile gain), .40 (i.e., 16 percentile gain), and .33 (i.e., 13 percentile gain), respectively.[23]

Questioning can be another highly effective instructional tool when used properly.[24] In particular, the types of questions asked, wait time, and types of responses play a role in the propitious use of questioning.[25]There are substantial differences in the adept use of questioning between effective teachers and ineffective teachers. On the negative side, in a study of mathematics classrooms, Craig and Cairo found that teachers asked more than 99% of the questions. They also found that teachers tended to provide little wait time, asked recall and use questions, and designated a particular student to answer a question.[26] On the positive side, one case study found that teachers deemed effective asked approximately seven times higher cognitive-level questions than those considered ineffective.[27]

*_Effect size_ is a measure of the magnitude of a treatment effect. Effect size helps us determine if the treatment effect is practically significant. The effect size can be interpreted as the average percentile standing of the students who received the treatment relative to the average untreated students. For instance, the strategy of mastery learning has an effect size of 0.58 on student achievement. An effect size of .58 would translate into a percentile gain of approximately 20 points.

Effective teachers ask questions that are sensitive to students' differential levels of learning abilities, and that the questions are more closely aligned with learning outcomes and learning activities. Effective teachers try to accommodate their teaching to students of different levels. They take students' individual needs into account while differentiating the learning objectives, learning activities, and assessments, so that ALL students can engage with meaningful learning. Effective teachers have also been found to be more self-reflective and critical about their own classroom instruction. They are more adept in planning, evaluating, and modifying their instructional process, and more skillful in deploying strategies flexibly to attain their instructional goals.[28]

The complexities of teaching involve the focus on not only the breadth of content and skills that students should possess, but also the depth of the content and skills.[29] Effective teachers focus on meaningful connections rather than isolated facts and ideas.[30] A study of student performance on the NAEP found that when teachers emphasized facts over reasoning, students performed more poorly than those of teachers who emphasized reasoning.[31] Effective teachers emphasize meaning. They encourage students to respond to questions and activities that require them to discover and assimilate their own understanding, rather than to simply memorize material.[32] These teachers also present and engage students in content at various levels of complexity, using a broad range of objectives and activities and employing activities and questions that address higher and lower levels of cognitive complexity.

Techniques that have been found to substantially increase student achievement include direct instruction, simulated instruction, and integrated instruction.[33] Integrating technology has also been associated with better academic achievement.[34] In addition, instruction that includes hands-on activities and cooperative groups has been associated with increased academic performance.[35] Furthermore, questioning as an instructional strategy has also been found to be effective among students.[36] A study of student reading growth revealed that the more teachers focused on higher level questions, the better students performed in reading.[37] Teachers also provided wait time for students to reflect on their answers.[38] Throughout instruction, effective teachers model and provide scaffolding to support student achievement.[39] While extant empirical studies focus on specific techniques and their impact on student achievement, the common thread among the studies is the focus on using a variety of instructional strategies.

Selected instructional practices exhibited by effective teachers are noted in the following list. The effective teacher:

- Stays involved with the lesson at all stages so that adjustments can be made based on feedback from the students.[40]
- Uses a variety of instructional strategies, as no one strategy is universally superior with all students.[41]
- Uses research-based strategies to enhance the time students spend with teachers by making instruction student-centered.[42]
- Involves students in appropriate and challenging learning activities, such as cooperative learning, to enhance higher order thinking skills.[43]
- Knows that instructional strategies that use students' prior knowledge in an inquiry-based, hands-on format facilitate student learning.[44]
- Uses remediation, skills-based instruction, and differentiated instruction to meet individual student's learning needs.[45]
- Uses multiple levels of questioning aligned with students' cognitive abilities.[46]

There is no single classroom practice that is necessarily effective with all subject matter and all grade levels.[47] Effective teachers recognize that no single instructional strategy can be used

in all situations. Rather, they develop and call on a broad repertoire of approaches that have proven successful for them with students of varying abilities, backgrounds, and interests.[48] Effective instruction involves a dynamic interplay among content to be learned, pedagogical methods applied, characteristics of individual learners, and the context in which the learning is to occur.[49] Ultimately, subject matter knowledge, pedagogical skills, and an inspiration for instructional innovation and development can liberate individual teachers to explore the diversification and richness of daily practice.

Impact of Teacher Instructional Strategies on Student Achievement[50]

Variables	Effect Size	Source of Influence
Providing formative evaluation	.90	Teacher
Acceleration	.88	School
Teacher clarity	.75	Teacher
Feedback	.73	Teacher
Teacher-student relationships	.72	Teacher
Meta-cognitive strategies	.69	Teacher
Students' prior achievement	.67	Student
Not labeling students	.61	Teacher
Problem-solving instruction	.61	Teacher
Direct instruction	.59	Teacher
Mastery learning	.58	Teacher
Concept mapping	.57	Teacher
Socioeconomic status	.57	Home
Class environment	.56	Teacher
Challenge level of learning goals	.56	Teacher
Peer tutoring	.55	Teacher
Parental involvement	.51	Home
Expectations	.43	Teacher
Matching students' learning styles	.41	Teacher
Cooperative learning	.41	Teacher
Advance organizers	.41	Teacher
Higher cognitive questioning	.46	Teacher
Peer effects	.38	Student
Time on task	.38	Teacher
Computer-assisted instruction	.37	Teacher
Frequent testing/ Effects of testing	.34	Teacher
Homework	.29	Teacher
School aims and policies	.24	School
Affective attributes of students	.24	Student
Finances	.23	School
Individualization	.23	Teacher
Teaching test-taking and coaching	.22	Teacher
Physical attributes of students	.21	Student
Personality	.19	Student
Family structure	.17	Home
Ability grouping	.18	School
Reducing class size from 25 to 13	.13	School
Teacher subject matter knowledge	.09	Teacher
Student control over learning	.04	Teacher
Retention	-.16	School
Television	-.18	Home

Sample performance indicators for the professional knowledge of teachers

3.1 Engages students in active learning and maintains interest.
3.2 Builds upon students' existing knowledge and skills.
3.3 Reinforces learning goals consistently throughout the lesson.
3.4 Uses a variety of research-based instructional strategies and resources.
3.5 Effectively uses appropriate instructional technology to enhance student learning.
3.6 Communicates and presents material clearly, and checks for understanding.
3.7 Develops higher-order thinking through questioning and problem-solving activities.
3.8 Engages students in authentic learning by providing real-life examples and interdisciplinary connections.

Sample student evidence that the teacher has met the criteria for proficiency

- Make transitions from prior knowledge to new concepts with teacher support.
- Grasp meaning, not just facts.
- Create a range of products that provide evidence of learning in a unit.
- Use multiple strategies in learning new concepts.
- Take reasonable risks in responding, questioning, and/or producing products that reflect higher order thinking.
- Use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decision.
- Demonstrate an ease of use with a wide variety of technology and software resources to complete assignments and show understanding of learning.
- Examine his/her own work and can explain how it relates to GPS/CCGPS.
- Describe learning expectations for which they are responsible, either in their own language or the language of the standard.
- Compare his/her work against standard-specific benchmarks and show evidence of the standards in their work.

Sample conference prompts

- What is an example of a research based strategy you have used to successfully engage students?
- How do you learn about proven research-based strategies?
- How do you share what works with other colleagues?
- In what ways have you sought to keep instruction focused at a higher level of thinking?
- In what ways do you use technology and resources to promote higher-order thinking?
- How do you challenge special education students to use higher-order thinking skills?
- How have you worked with colleagues to locate and use technology tools and resources?
- What is an example of a lesson you developed that incorporated technology?
- How have you used benchmarks and exemplars this year as related to student mastery of standards?
- How have you worked with colleagues to develop exemplars and benchmarks?
- How have you created, modified, or used rubrics to communicate expectations?

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Teacher Self-Assessment Checklist **Performance Standard 3: Instructional Strategies**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Instructional strategies	Employ a variety of techniques and instructional strategies to enhance student motivation and decrease discipline problems.				
	Use both direct instruction and indirect instruction flexibly to serve appropriate learning purposes.				
	Stress meaningful conceptualization, emphasizing the students' own knowledge of the world.				
	Match instruction on students' achievement levels and needs.				
	Think through likely misconceptions that may occur during instruction and monitor students for these misconceptions.				
	Connect the learning process and outcomes to the authentic contexts in students' real life.				
	Adjust the delivery and pacing of the lesson in response to student cues.				
Content and Expectation	Choose appropriate pedagogical strategies that can best present the content.				
	Give clear examples and offer guided practice.				
	Make the learning student-centered.				
	Stress student responsibility and accountability in mastery of content and skills.				
	Teach students to reflect on learning progress.				
Cognitive Challenge	Is concerned with having students learn and demonstrate higher-order thinking skills rather than memorization of facts.				
	Provide in-depth explanations of academic content and cover higher-order concepts and skills thoroughly.				
	Stress meaningful concept mapping to connect new knowledge with prior learning.				
Questioning	Ask questions that reflect type of content and goals of the lesson.				
	Ask questions of varying depths of knowledge.				
	Use wait time during questioning.				
	Recognize the pattern in student learning and promptly adjust instruction to maximize student learning.				

Fact Sheet #6 - Performance Standard 4: Differentiated Instruction

DIFFERENTIATED INSTRUCTION

The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.

Effective teachers differentiate instruction and individualize for the range of student needs, abilities, and preferences in the classroom. Instead of using uniform strategies for all students, effective teachers design instruction that motivates each student and they communicate content in such a way that students are able to comprehend based on their individual prior learning and ability. Because students learn in a variety of ways and at a variety of rates, teachers should deliver their lessons with appropriate variety. As Weiss explained, differentiation to maximize the learning of individual students is the cornerstone of effective teaching. He pointed out that "we do our kids a disservice by choosing one pedagogy and using it all the time."[1]Carolan and Guinn stated that: "Diversity is a gold mine. It offers all members of a diverse group multiple ideas, perspectives, and solutions to problems. Teachers can nurture this diversity early on by maximizing the potential of each student in their classroom."[2]Effective teachers tend to recognize individual and group differences among their students and accommodate those differences in their instruction.[3] They adapt instruction to meet student needs, which requires careful assessment and planning for all students in the classroom, as well as the ability to select from a range of strategies to find the optimal match to the context.[4]Differentiation requires teachers to reflect on students as individuals. They also need to be clear about what students should know, understand, and able to do as the result of a segment of learning, and they also need to have a repertoire of instructional approaches to manage and facilitate flexible student-centered instruction.[5]

Studies on student achievement and on perceptions of teacher effectiveness have emphasized the importance of appropriate differentiation in instruction, including the following findings:

- Students are most engaged and achieve most successfully when instruction is appropriately suited to their achievement levels and needs.[6]
- Instructional differentiation requires careful monitoring and assessment of student progress, as well as proper management of activities and behavior in the classroom. Placing students into groups based on ability without tailoring instruction to the different groups is insufficient to support academic success.[7]
- Effective teachers know and understand their students as individuals in terms of their abilities, achievement, learning styles, and needs and give greater emphasis to individualization in their teaching.[8]

A meta-analysis of the extant research suggests that instruction based on learning styles is positively related to student attitudes and achievement.[9] Dunn et al. conducted a meta-analysis of 36 experimental studies to examine the effects of teaching students through their learning-style preferences.[10] They found that instructional interventions designed to meet the learning needs of the students showed a statistically significant difference in achievement over students not being accommodated, with an effect size of .353. That means students whose learning styles are accommodated would achieve 75% of a standard deviation higher than their counterparts whose learning styles are not accommodated. Dunn et al. also extended this finding to at-risk students, reporting that mean achievement increased nearly one standard deviation (i.e., approximately 84th percentile versus 50th percentile) when teachers accommodated for learning styles.[11] Implementing a variety of classroom techniques and strategies also enhances student motivation

and decreases discipline problems.[12] Furthermore, differentiated instruction enables teachers to adjust their curriculum, materials, learning activities, and assessment techniques to ensure that all students in a mixed-ability classroom can have different avenues to process new knowledge and develop skills, while having equal access to high-quality learning.[13]

Studies have found that a learning unit that has been enhanced or modified based on student learning abilities can improve students' learning outcomes compared with a regular textbook unit.[14] Furthermore, students from all socio-economic backgrounds and of different prior achievement levels make significant gains during the implementation of a differentiated unit. They also present higher motivation for learning. These studies indicate that teachers can differentiate the regular teaching materials, through the use of flexible grouping practices based on pre-assessment of student learning, and the increase of the breath (i.e., interest, choices, and learning style variation) and depth (lessons for different ability levels), to create more meaningful learning for students. Beck also noted that accommodating student differences can be beneficial in many ways.[15] First, it motivates teachers to broaden their instructional versatility and creativity. Second, students are more likely to respond favorably to the subject content that is presented in a way that is compatible to their learning preferences. Third, students' positive attitudes can lead to higher commitment to learning and decrease behavioral problems. Research and best practice indicate that teachers can differentiate at least three classroom elements as shown in Figure 4, according to students' readiness and preference.

How to Differentiate[16]

Content	What do we want our students to know? How do we present the curriculum so that all children can learn the content?	Differentiation can take the form of varying the modalities in which students gain access to important learning, for example by (a) listening, reading, and doing; (b) presenting content in incremental steps, like rungs on a ladder, resulting in a continuum of skill-building tasks; and (c) offering learners a choice in the complexity of content with which they will begin a learning task that matches their current level of understanding and from which every learner can experience academic success.
Process	What do we want our students to be able to do? How can we integrate basic and higher-level thinking skills into the curriculum?	Differentiation takes the form of grouping flexibly, for example, by (a) varying from whole class, to collaborative groups, to small groups, to individuals, and (b) providing incentives to learn based on a student's individual interests and current level of understanding.
Product	What do we want our students to create? How can we teach them to become more self-directed learners?	Differentiation can also the take the form of varying assessment methods, such as (a) providing students a menu of choices that may include oral responses, interviews, demonstrations and reenactments, portfolios, and formal tests; (b) keeping each learner challenged at his or her level of understanding with content at or slightly above his or her current level of functioning; and (c) allowing students to have some choice in the means in which they can express what they know for example, writing a story, drawing a picture, or telling about a real-life experience that involves what is being taught.

As general education classrooms are increasingly inclusive, differentiation is becoming more essential to enable all students to achieve their optimal levels of learning. Despite the importance of differentiation, teachers are still not implementing it on a regular basis. Many teachers are resistant to differentiation because:

- They do not receive administrative support.
- They fear that straying from the mandated curriculum may result in lower standardized test scores.

- They have classroom management or student behavioral problems.
- They are resistant to long-term changes in teaching style.
- They do not have time to plan for differentiation.
- They fear that students' parents may not agree with the practice.[17]

Carolan and Guinn pointed out that many educators mistakenly think that differentiation means teaching everything in at least three different ways. A differentiated classroom does look different from a one-size-fits-all classroom, but often the differences between students are less dramatic. For instance, differentiation can be in form of developing a metaphor matched to a student' cognitive ability and personal interests, or pushing the thinking of an advanced student during a whole-class discussion.[18] Through observations and interviews with five outstanding teachers, they found that their strategies that addressed student individual needs had four common characteristics:

- Offering personalized scaffolding, often inventing supports on the spot as a student faltered. In order to deliver tailored explanations, these teachers had a rich mental database of examples, metaphors, and enrichment ideas to draw on.
- Using flexible means or multiple paths to reach defined ends.
- Mining subject-area expertise. These teachers not only knew the landscape of their subject matter, they also showed multiple ways to navigate it and translate it into their instruction in a manner that led to student learning.
- Creating a caring classroom in which student differences in ability, culture, language, or interests were seen as assets, rather than hurdles.

Sample performance indicators for the professional knowledge of teachers

4.1 Differentiates the instructional content, process, product, and learning environment to meet individual developmental needs.

4.2 Provides remediation, enrichment, and acceleration to further student understanding of material.

4.3 Uses flexible grouping strategies to encourage appropriate peer interaction and to accommodate learning needs/goals.

4.4 Uses diagnostic, formative, and summative assessment data to inform instructional modifications for individual students.

4.5 Develops critical and creative thinking by providing activities at the appropriate level of challenge for students.

4.6 Demonstrates high learning expectations for all students commensurate with their developmental levels.

Sample student evidence that the teacher has met the criteria for proficiency

- Meet the same standards through the same content/process but may demonstrate learning through differentiated products.
- Discover and examine their strengths, talents, interests, and resources with teacher guidance.
- Complete individualized activities designed to achieve success in specific content and/or skills.
- Participate successfully in group learning activities designed to help peers of varied academic strengths and weaknesses work together.
- Practice leadership and support roles in groups with teacher's help.
- Provide feedback to the teacher about how they learn best, when they are confused, and what help they need.

- Learn and enact explicit roles and responsibilities (e.g., group member, listener, partner, worker, etc.)
- Learn in ways that are comfortable and productive for them.
- Explain different group options typically used by the teacher.
- Grasp the meaning, not just the facts, of the content they learn.
- Explain and demonstrate how they can meet or have met the standards.
- Explain personal learning goals and how they have met them.
- Use agenda (or other forms of communication) to record individual learning goals.

Sample conference prompts

- How have you determined which differentiation strategies are appropriate for your students?
- How have you adapted instruction?
- How have you worked with teachers to develop differentiation strategies for special needs and gifted students?
- How do you use technology and resources to differentiate instruction?
- What is your process for determining how to group students for particular lessons?
- How do you use data to support your grouping practices?
- How do you determine whether or not a group is working well? How do you make adjustments to improve effectiveness?
- How do students set their own learning goals in the classroom?
- How do you support student goal-setting and self-assessment during your lesson?

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Teacher Self-Assessment Checklist **Performance Standard 4: Differentiated Instruction**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Differentiating Content	Increase the breath of learning materials to enhance student learning motivation.				
	Offer students choice regarding the complexity (depth) of content they want to start with so that they can experience academic success.				
	Offer multiple modes of learning for students to be exposed to the target content through their learning-style preferences (such as reading, listening, or doing).				
	Re-teach an idea or skill in small groups of struggling learners.				
	Extend and enrich the thinking or skills of advanced learners.				
Differentiating Process	Vary instructional strategies and activities for students.				
	Vary types of assignment to assess student learning.				
	Routinely combine instructional techniques that involve individual, small-group, and whole-class instruction.				
	Monitor and pace instruction based on the individual needs of students.				
	Draw on a mental database of examples, metaphors, and enrichment ideas to provide personalized scaffold.				
	Offer optimal amount of support/intervention and structure learning tasks to ensure the learning demand is appropriately challenging.				
Differentiating Product	Provide students with choices regarding the method to express required learning, such as presentation, portfolios, or formal tests.				
	Use rubrics that match and extend students' varied ability levels.				
	Encourage students to produce their own product assignment.				
	Allow students to work alone or in small groups on projects.				
Learning Environment	Create an environment in which student differences in ability, cultural background, academic needs and interest are respected and treated as assets.				
	Know and understand students as individual in terms of ability, achievement, learning styles, and needs.				

Fact Sheet #7 - Performance Standard 5: Assessment Strategies

ASSESSMENT STRATEGIES

The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.

A teacher's skill in assessment must be more than merely testing students or measuring achievement. Teacher assessment skill "must center not on *how [they] assess* student achievement but on *how [they] use assessment* in pursuit of student success."[1]Researchers usually draw a distinction between *assessment **of** learning* and *assessment **for** learning.* Gronlund described assessment *of* learning as "a broad category that includes all of the various methods for determining the extent to which students are achieving the intended learning outcomes of instruction."[2]Assessment of student learning can emerge in various formats, such as teacher observation, oral questioning, journal entries, portfolio entries, exit cards, skill inventories, homework assignments, project products, student opinions, interest surveys, criterion-referenced tests, or norm-based tests. [3] In comparison, assessment *for* learning involves the teacher gathering, analyzing, and using data, including state and district assessment data, to measure learner progress, guide instruction, and provide timely feedback. Educators distinguish three different types of assessment based on the purpose and principles that drive assessment:

- Diagnostic assessment – the purpose of diagnostic assessment is to ascertain, prior to instruction, each student's strengths, weaknesses, knowledge, and skills and to permit the teachers to remediate, accelerate, or differentiate the instruction to meet each student's readiness for new learning.
- Formative assessment – formative assessment is an assessment that is integral to the instructional process to help teachers adjust and modify their teaching practices so as to reflect the progress and needs of the students.
- Summative assessment – summative assessment can occur at the end of a chapter, unit, semester or a school year to determine the student attainment of the standards of certain subject areas.

The practice of assessing student learning is essential for effective instruction and learning. High quality assessment provides teachers with the information regarding the extent to which students have attained the intended learning outcomes, and it informs teachers' instructional decision making (what to teach and how to teach) as well. The goals of assessment are to provide teachers with evidence of student learning and to facilitate teachers in making informed decisions on revising instruction and advancing student learning.

Assessment can facilitate instruction and learning in many ways, including:

- Providing diagnostic information regarding students' mental readiness for learning new content.
- Providing formative and summative information needed to monitor student progress and adjust instruction.
- Keeping students motivated.
- Holding students accountable for their own learning.
- Providing opportunities to re-expose students to content.
- Helping students to retain and transfer what they have learned.[4]

Research has indicated that teachers who introduce assessment into their classroom practice can affect substantial achievement gains. In their 1998 research review, Black and Wiliam examined a multitude of empirical studies to determine whether improvement in classroom assessments can lead to improvement in learning.[5] They found that formative assessment has substantial positive effects on student

achievement, with effect size ranging from 0.3 to 0.7 standard deviations. Particularly, they found that formative assessment is more effective for low achievers than other students, thus, reducing an achievement gap while raising achievement overall at the same time.[6]Wenglinsky found that teachers' use of frequent assessment and constructive feedback had a positive effect on student mathematics and science achievement at all grade levels.[7]Stronge et al. also noted that effective teachers and ineffective teachers differed in their student assessment practices.[8] In particular, effective teachers were found to provide more differentiated assignments for students than those deemed ineffective.

Research has found that an effective teacher:

- Gives regular feedback and reinforcement.[9]
- Offers timely and specific feedback.[10]
- Gives homework and offers feedback on the homework.[11]
- Uses open-ended performance assignments.[12]
- Analyzes student assessments to determine the degree to which the intended learning outcomes align with the test items and student understanding of objectives. [13]
- Interprets information from teacher-made tests and standardized assessments to guide instruction and gauge student progress by examining questions missed to determine if the student has trouble with the content or the test structure.[14]

Assessments are more likely to have a positive influence on student learning when they exhibit the following characteristics:

- Aligned with the framework of learning targets and instruction.
- Of sufficient validity and reliability to produce an accurate representation of student learning.
- Accompanied with frequent informative feedback, rather than infrequent judgmental feedback.
- Involve students deeply in classroom review and monitoring.
- Processes and results are timely and effectively communicated.
- Documented through proper record keeping of learning results.[15]

As noted earlier, there are multiple methods for assessing student learning. Guskey found that teachers and administrators believed student portfolios were the most important type of assessment tool used to measure student learning, while division, state, and national assessments ranked the lowest.[16] Interestingly, homework ranked in the middle of Guskey's analysis of assessment types. Regardless of the type of assessment used, the more important issue is the practical value of the assessment in use. Tomlinson suggested that teachers must find a proper fit between students and the method being used to assess their learning.[17] Assessment is a form of communication. Teachers must allow students to communicate their learning in a manner best suited to their needs.

Given the prevalence of standardized assessments at the state, regional, and national levels, in the United States and in numerous countries around the globe, a brief summary on this particular type of assessment seems in order. Extant literature has documented both positive and negative impacts of standardized assessments on teachers' instruction and assessment at the classroom level. The positive evidence indicates that standardized tests motivate teachers to:

- Align their instruction to standards.
- Maximize instructional time.
- Work harder to cover more material in a given amount of instructional time.
- Adopt a better curriculum or more effective pedagogical methods.[18]

However, other research reveals that high-stakes assessments force teachers to:

- Narrow the curriculum.
- Focus on memorization, drills, and worksheets.
- Allocate less time to higher-order skills.
- Restrict their teaching to formulated approaches of instruction.[19]

Standardized assessment is not primarily concerned with what is going on in the daily classroom. Consequently, teachers should maintain a balance between state/national-level assessments and classroom-level assessments to optimize student learning.

Sample performance indicators for the professional knowledge of teachers

5.1 Aligns student assessment with the established curriculum and benchmarks.
5.2 Involves students in setting learning goals and monitoring their own progress.
5.3 Varies and modifies assessments to determine individual student needs and progress.
5.4 Identifies and uses formal and informal assessments for diagnostic, formative, and summative purposes.
5.5 Uses grading practices that report final mastery in relationship to content goals and objectives.
5.6. Uses assessment techniques that are appropriate for the developmental level of students.
5.7 Collaborates with others to develop common assessments, when appropriate.

Sample student evidence that the teacher has met the criteria for proficiency

- Give examples of how the teacher assesses prior knowledge at the beginning of most instructional units/courses, etc.
- Give several examples of how the teacher gave different tasks to different individuals or groups.
- Learn from their misconceptions as the teacher uses formative assessment to adjust teaching to meet student needs.
- Participate in and learn from a variety of appropriate formative assessments.
- Explain teacher feedback on summative assessments as well as re-teaching that promotes specific knowledge of the GPS/CCGPS content.
- Describe their strengths and weaknesses *based on assessments.*

Sample conference prompts

- How are you using assessment data to plan~~t~~ your lesson or unit plans?
- How are you differentiating based on diagnostic data?
- What is your process for analyzing and interpreting diagnostic data you collect on your students?
- How are you using formative assessments to adjust instruction? How do you differentiate based on formative assessments?
- What is your process for analyzing and interpreting formative assessments data?
- What is an example of how you used data to adjust instruction?
- How are the summative assessments connected to the GPS/CCGPS or other standards?
- How does the data from the summative assessment inform your future instruction?

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Teacher Self-Assessment Checklist **Performance Standard 5: Assessment Strategies**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Use Different Formats of Teacher-Made Assessment	Use conventional multiple-choice, matching, alternate choice, true/false, and fill-in-the-blank questions appropriately.				
	Use short answer, constructed response, and essay to encourage students to explain their understanding of important ideas and principles.				
	Design performance tasks to ask students to show what they can do with the knowledge and skills learned.				
	Observe students informally in the classroom to assess their ongoing learning.				
	Encourage students' self-assessment of their own thinking, reasoning, processes, and products.				
	Clearly explain homework.				
	Design diagnostic assessment to identify students' strengths, weaknesses, and mental readiness for learning new content or skill.				
	Use formative assessment to monitor student learning progress and modify instruction.				
	Use summative assessment to determine the student attainment of the standards of subject areas.				
	Be a critical consumer of available assessment resources.				
Validity of Assessment	Relate assessment to the content under study and to student capacity.				
	Match assessment to intended learning objectives.				
	Align assessment with written and taught curriculum.				
	Use assessment that can truly reveal whether students understand the learning.				
	Use ongoing assessment to monitor student progress.				
	Use multiple assessments to determine whether a student has mastered a skill.				
	Design assessments to assess both higher- and lower-level content and skills.				
	Exercise accommodations in assessment for students with special needs.				
	Use robust rubrics or scoring guides for student assignments, products, and projects.				

Fact Sheet #8 - Performance Standard 6: Assessment Uses

ASSESSMENT USES

The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.

Effective teachers not only assess student learning, but also they use the results of student assessment systematically and intelligently. That is a commonly adopted strategy by effective teachers and an integral attribute of their instruction. Using assessment means assessment of student learning is not just the end, but also the means to reach an end by continuously monitoring success and step-by-step moving to desired learning outcomes. Assessment is a waste of time and effort if its results are shelved and collect dust. The essence of assessment is how it can lead to improvements in teaching and learning.[1]Assessment use can be defined as the practice that helps teachers use student performance data to continuously evaluate the effectiveness of their teaching and make more informed instructional decisions.[2] The purposes of assessment use include:[3]

- Gathering important information about student understanding to make prompt instructional modification - evidence of students' knowledge and understanding.
- Providing timely and informative feedback to students - the nature of feedback given to students.
- Enabling students to set and attain meaningful goals - shifts in the way that students learn.

A review of research by Natriello[4] and Crooks[5] and more recently by Black and Wiliam[6] has demonstrated that substantial student learning gains are possible when teachers introduce assessment results into their classroom practice. Assessment data can be used for tasks such as setting annual, intermediate, and ongoing goals. Assessment results also can be used to visually depict goals and visions, motivate students, and celebrate achievements and progress.[7] Effective teachers provide instruction and support that leads to quality learning opportunities on a day-to-day basis. Additionally, an experimental study reached the following conclusions for teachers who monitored their students' progress on a regular basis:

- They effected greater student achievement than those who used conventional monitoring methods.
- They had more improvement in their instructional structure.
- Their pedagogical decisions reflected greater realism and responsiveness to student progress.
- Their students were more knowledgeable of their own learning and more conscious of learning goals and progress.[8]

The practice of assessing and documenting student growth is essential for effective instruction and learning. It determines the effectiveness of a period of teaching (*e.g.*, a lesson, a unit, a semester, or a school year) in terms of student learning and provides a basis for continuing instruction. Collecting evidence of students' learning progress provides teachers with day-to-day data on students' mental preparedness for certain learning targets and facilitates teachers in making data-based decisions for instruction modification. The data can come from small-group discussion with the teacher and a few students, whole-class discussion, journal entries, portfolio entries, exit cards, skill inventories, pretests, homework assignments, student opinion, or interest surveys.[9] In addition, reviewing student work (*e.g.*, student writing samples and project-based work) is also an important way of assessing student performance on curricular goals and identifying desired changes in instructional practices.

Student progress monitoring is a technique that can provide teachers with data on students' performance to evaluate the effectiveness of their instruction and make adjustments in their pedagogical behavior. Progress monitoring also can help teachers set meaningful student achievement goals to tap into greater student learning potential. Teachers who use progress monitoring also are better informed of the strengths and weaknesses in student learning and can better decide on what instructional modifications are necessary. Empirical research has found that when progress monitoring is combined with goal-raising, student learning profiles, and appropriate instructional modifications, it can help teachers build stronger instructional programs that are more varied and more responsive to students' learning needs, and effect better academic performance for students.[10] Stecker, Fuchs, and Fuchs noted that teachers effected significant growth in student learning with progress monitoring only when they modified instruction based on progress monitoring data; however, frequent progress monitoring alone did not boost student achievement.[11]

Effective teachers are often described as flexible and opportunistic. They use various techniques (such as questioning, classroom observation) to diagnose student learning and then adjust instruction promptly to close the gap between where the students are now and where the students should be. Effective teachers are aware that when students begin to indicate unengaged behaviors, that can be the result of poorly planned activities, inadequate scaffolding and modeling, or insufficient attention to developing norms and participation routines in the classroom.[12] To address student off-task behaviors, they not only use behavior control, but also, more importantly, modify their instruction to make it more engaging. Effective teachers ask appropriate questions at appropriate times to solicit information regarding how well students have mastered the basic facts, skills, or ideas in a lesson. The technique of questioning not only provides students an opportunity to think critically and become more informed about their learning, it also provide important input for teachers to make instructional modifications.

An instructional technique that is complimentary to questioning is feedback. Questions and answers, from teachers to students and back again, represent much of the academic interaction that takes place in schools. This process supports student engagement in learning and enhances teachers' ability to monitor the learning process.[13] Feedback to students that focuses on developing skills, understanding, and mastery, and treat mistakes as opportunities to learn is particularly effective.[14] Effective feedback targets students' specific misconceptions or errors that occur in a content area or a skill set and that provide informative guidance on what they need to do to maximize their performance. Effective teachers avoid simple yes or no answers; rather, they provide informative explanations of what students are doing correctly, what they are not doing correctly, and how to fix it.[15] Students as well as teachers have strong beliefs about the importance of feedback. Students report that informative feedback makes them aware of their mistakes, highlights ways to make corrections, and informs them of teacher expectations. Teachers report that providing feedback can be arduous and painstaking, but also they feel that it is an important part of instruction.[16]

Based on a large-scale research review, Hattie found that compared to their ineffective colleagues, effective teachers were adept at monitoring student problems and assessing their level of understanding and progress, and they provided much more relevant, useful feedback.[17] The research also shows that effective teachers are more adept at developing and testing hypotheses about learning difficulties or instructional strategies. Wenglinsky found that

teachers' use of frequent assessment and constructive feedback had a positive effect on student mathematics and science achievement at all grade levels.[18] Some other characteristics of teachers' effective use of student assessment data include:

- Aligning intended learning outcomes, instruction, and assessment to effectively keep track of students' progress.[19]
- Using high-quality homework and classroom quizzes to review student performance on key knowledge and skills, and providing meaningful and timely feedback.[20]
- Targeting areas of strength and weakness to provide appropriate remediation.[21]

When teachers monitor students' ongoing learning and use student assessment data to inform their own teaching, they:

- Effect greater student achievement.
- Have more improvement in their instruction and make their pedagogical decisions more responsive to student learning.
- Exhibit greater concerns about learning and higher academic emphasis in their classroom practices.
- Are better at supervising the adequacy of student learning, identifying students in needs of additional or different forms of instruction, and modifying practices to maximize student learning.[22]

Fuchs and Fuchs found that teacher use of ongoing student assessment data can be beneficial to student learning in many ways, such as:

- To identify students in need of additional or different forms of instruction.
- To enhance instructional decision-making by assessing the adequacy of student progress.
- To determine when instructional modifications are necessary.
- To prompt teachers to build stronger instructional programs that are more varied and responsive to student needs.[23]

Sample performance indicators for the professional knowledge of teachers

6.1 Uses diagnostic assessment data to develop learning goals for students, to differentiate instruction, and to document learning.
6.2 Plans a variety of formal and informal assessments aligned with instructional results to measure student mastery of learning objectives.
6.3 Uses assessment tools for both formative and summative purposes to inform, guide, and adjust instruction.
6.4 Systematically analyzes and uses data to measure student progress, to design appropriate interventions, and to inform long- and short-term instructional decisions.
6.5 Shares accurate results of student progress with students, parents, and key school personnel.
6.6 Provides constructive and frequent feedback to students on their progress toward their learning goals.
6.7 Teaches students how to self-assess and to use metacognitive strategies in support of lifelong learning.

Sample student evidence that the teacher has met the criteria for proficiency

- Recognize that the teacher tries to meet the needs of all students.
- Be engaged in learning and on task.
- Explain how they need to perform on most tasks to-meet standard
- Be aware that the teacher works individually with struggling students and high achieving ones on what they need to learn and where they need to focus their efforts.
- Have multiple opportunities to achieve mastery and improve grades.
- Articulate assessment procedures.

Sample conference prompts:

- How do you use assessment data to plan instruction based on student and sub-group need?
- How to you contribute to the RTI process?
- How do you monitor students and use various types of data to assess student needs? What types of data do you use?
- Give an example of a student for whom you identified a need and provided an intervention?

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Teacher Self-Assessment Checklist **Performance Standard 6: Assessment Uses**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Identify and Enhance Student learning	Use assessment data to check for understanding and adequacy of learning.				
	Return student work in a timely manner.				
	Assess, comment on, and discuss homework in class.				
	Give clear, timely, and informative oral or written feedback.				
	Document student progress and achievement over time.				
	Share progress reports with students and parents in a timely manner.				
	Remediate the learning of students who did not achieve mastery.				
	Provide differentiated instruction based on assessment analysis.				
	Interpret data of teacher-made assessment and standardized assessment accurately and make inferences about student progress and challenges.				
	Provide students with opportunities to reflect on their performance themselves and ask questions.				
	Provide opportunities for students to reengage with the content and skills of the curriculum, rather than focusing solely on the grades.				
	Use assessment data to set future achievement goals.				
Improve Instruction	Use assessment data to self-assess instructional effectiveness and identify areas of strengths and weaknesses.				
	Make instructional decisions based on student achievement data analysis.				
	Make pedagogical decisions more responsive to student learning needs.				
	Design appropriate interventions for students in needs of additional or different forms of instruction.				
	Use information gained from ongoing assessment for remediation and instructional planning.				

Fact Sheet #9 - Performance Standard 7: Positive Learning Environment

POSITIVE LEARNING ENVIRONMENT

The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.

Students need an engaging, stimulating, and enriching learning environment to grow and thrive. In order to achieve this type of rich environment, effective teachers establish and communicate guidelines for expected behavior, monitor student behavior, keep students on task, and infuse humor, care, and respect into the classroom interactions, so as to develop a climate that is conducive to student learning. As a result, research has indicated that a positive learning environment can shape student outcomes in cognitive, motivational, emotional, and behavioral domains.[1]

Among others, the attributes of caring, supportive, safe, challenging, and academically robust help define what it means to have a positive learning environment that is conducive to student success.[2] However it is defined, virtually all teachers and administrators, and even students, themselves, recognize how valuable a positive classroom climate is to learning. The most prevalent criteria used to define learning environments are probably the physical arrangement of the classroom, discipline and routines, organization of learning activities, and the engagement of students with tasks, among others. The key features highlighted next can elucidate what research indicates about an effective learning environment.[3]

Key Features of an Effective Learning Environment

Defining Characteristics	**Focus**
Physical arrangement of the classroom	The teacher develops functional floor plans with teacher and student work areas and furniture/materials placement for optimal benefit.[4]
Discipline and routines	The teacher establishes classroom rules and procedures early on in the school year.[5]
Organization of learning activities	Classroom activities have an academic focus. The teacher orchestrates smooth transitions and maintains momentum throughout teaching and learning.[6]
Engagement of students	The teacher uses effective questioning, smooth transitions, and challenging but interesting activities to increase student engagement in learning and student accountability.[7]
Maximizing instructional time	The teacher protects instruction from disruption and makes the most out of every instructional moment.[8]
Communication of high expectations	The teacher assumes responsibility for student learning, sets high (but reasonable) expectations for all students, and supports students in achieving them.[9]
Care and respect	The teacher establishes rapport and trustworthiness with students by being fair, caring, respectful, and enthusiastic.[10]

Research has found that an effective teacher:

- Is adept at organizing and maintaining an effective classroom environment.[11]
- Has a sense of "with-it-ness," which can be translated as being aware of when routines need to be altered or an intervention may be needed to prevent behavior problems.[12]
- Fosters relationships where respect and learning are central so students feel safe in taking risks that are associated with learning and believes in the students.[13]
- Is culturally competent and attuned to students' interests both in and out of school.[14]

- Establishes good discipline, effective routines, smooth transitions, and ownership of the environment as components of establishing a supportive and collaborative climate.[15]

A review of research connecting learning environment and student achievement emphasizes a number of key dimensions, including classroom management and structure, positive classroom climate, and classroom talk.

Classroom management and structure: Teachers who emphasize structure in the classroom are more effective than those who do not.[16] In general, structure means "an aggregate of elements of an entity in their relationships to each other."[17] For our purposes in education, specifically, structure involves physically orienting the classroom for instruction, preparing and organizing materials, and framing lessons in a coherent and logical manner. Effective teachers implement good classroom management to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning.[18] Two key features of effective classroom management are:

1. Good management is preventive rather than reactive.
2. Teachers create well-managed classrooms by identifying and teaching desirable behaviors to students.

Effective teachers were found to maintain their management system by "monitoring and providing prompt feedback, pacing class activities to keep them moving, and by consistently applying classroom procedures and consequence."[19] The extant research is fairly clear that good classroom management has a positive influence on students' motivational development.

Positive classroom climate: Effective teachers build a classroom climate where error (i.e., risk taking) is welcomed, where student questioning is high, where engagement is the norm, and where students can gain reputations as effective learners.[20] Teachers who make the effort to engage in positive interactions with students make a difference in the academic and social development of their students.[21]

Classroom talk: The interaction between teacher and students, and among students, is another significant indicator of learning environment. Authority is more distributed than centralized through the communication that happens in a positive classroom environment. Additionally, the talk between teacher and student is personalized and personal. Exemplary teachers have been found to use authentic conversation to learn about students and encourage students to engage their peers' ideas.[22]

A safe school always starts with individual safe classrooms. Cornell and Mayer stated that "academic success for students begins with a trusting and mutually respectful relationship between student and teacher, extends to classroom order, and culminates in a safe and supportive school climate that is profoundly and inextricably linked to learning outcomes."[23] The classroom environment refers to the conditions, circumstances and influences surrounding and affecting the development and performance of learners. The classroom climate is the shared perceptions of learners about the classroom environment. The classroom climate can range from a warm, welcoming and nurturing atmosphere to one characterized by coldness and indifference.[24]

Attributes of Positive Learning Environment

Positive Attributes	Descriptions
Classroom management and structure	• identifying and communicating desirable behavior • consistently applying rules and procedures • monitoring student behavior • taking preventive rather than reactive management actions • pacing class activities and transitioning between tasks smoothly • maximizing instructional time • keeping students on task • making learning meaningful[25]
Positive classroom climate	• cooperation among teachers and students • common interest and values • pursuit of common goals • a clear academic focus • well-organized and well-planned lessons • explicit leaning objectives • appropriate level of task difficulty for students • appropriate instructional pace[26]
Classroom talk	• respectful, supportive, and productive • modeled by teachers • practiced to students

Anderson suggested that classes have a distinctive personality or "climate" which influences the learning efficiency of their members. The properties that make up a classroom environment include interpersonal relationships among students, relationships between students and their teachers, relationships between students and both the subject being studied and the method of learning, and the students' perception of the structure of the class.[27]

As early as 1973, Moos, the first researcher who popularized the concept of classroom climate, developed a measurement scale that measures the climate within a classroom on three broad categories:[28]

- *Relationships* – the degree to which individuals in the environment help and support each other and express themselves openly and freely.
- *Personal development* – the degree to which personal self-enhancement can occur.
- *Maintenance and change in the system* – the degree to which the environment is orderly, clear in its expectations, maintains control, and is able to change.

Similarly, the scale developed by Sinclair and Fraser measures classroom environment from five aspects:[29]

- *Cooperation* – the extent to which students cooperate with each other during class and activities.
- *Teacher Support* – the extent to which the teacher helps, encourages, and is interested in the students.
- *Task Orientation* – the extent to which it is important to the class to stay on task and complete class work.
- *Involvement* – the extent to which students participate actively in their class activities and discussions.
- *Equity* – the extent to which the teacher treats all students equally, including the distribution of praise and questioning and the inclusion in discussion.

Research has demonstrated that students in cooperative learning environments typically perform better than those in competitive or individualistic situations in terms of their reasoning, the generation of new ideas and solutions, and how well they transfer what they learn from one situation to another, as well as on traditional test measures.[30] The trust between the teacher and students and among students themselves is a key element to effective classroom environment. Tschannen-Moran explained the importance of trust in this way: "Without trust, students' energy is diverted

toward self-protection and away from learning."[31]

A synthesis of research studies indicates that learning outcomes and gains are positively associated with learning environment characteristics like cohesiveness, satisfaction, task difficulty, formality, goal direction, democracy, and the material environment, but negatively associated with characteristics like friction, cliqueness, apathy, and disorganization.[32] Students' perceptions of their learning environment impact their self-concept as a learner. Byer found a positive relationship between students' perceptions of classroom social climate, students' perceptions of classroom affiliation, and academic self-concept.[33] Byer also found a positive relationship between students' perceptions of classroom involvement and academic self-concept.[34] Research also found that students' perceptions of the classroom social environment (teacher support, promotion of mutual respect, promotion of task-related interaction, student support) were related to their engagement in the classroom (self-regulation and task-related interaction).[35]

The interaction between teacher and students is a significant indicator of learning environment. Teachers and students spend much of their day interacting academically. However, social interactions and those that give the teacher opportunities to demonstrate caring, fairness, and respect have been shown to be an important element of teacher effectiveness. A teacher's ability to relate to students and to make positive, caring connections with them plays a significant role in cultivating a positive learning environment and promoting student achievement.[36]

Teachers who make the effort to engage in positive interactions with students make a difference in the academic and social development of their students. A constructive interaction with students is a motivator for students to act in accordance with the expectation of their teacher. Studies confirm that low student achievement can result from stressful student-adult relationships, while positive relationships can lead to higher levels of student participation and engagement.[37]

Teacher interactions with students have been found to have effects at all grade levels. Hamre and Pianta found that first grade teachers who engaged in positive interactions with at-risk students reduced the probability of those students experiencing failure in the early grades.[38] Barney found that middle school students developed a more positive attitude toward course content when their teachers took the time to interact with them.[39] Pressley, Raphael, Gallagher, and DiBella found that secondary teachers who got to know their students personally were able to work with them to develop and achieve goals.[40]

Cornelius-White synthesized 119 studies that examined the impact of learner-centered teacher-student relationships on student outcomes.[41] Specifically, the author focused on the teacher-students relationships that are characterized by empathy, warmth, genuineness, non-directiveness, higher-order thinking, encouraging learning/challenge, adapting to individual and social differences, and composites of these. Overall, the meta-analysis found that these student-centered teacher variables have positive association with student cognitive (e.g., academic achievement in math, science, social science, and verbal achievement), affective (e.g., positive motivation, self-esteem/mental health, social connections), and behavioral (e.g., student participation/initiation, outcomes, attendance/absences, disruptive behavior) outcomes. The mean correlations ($r = .31$) are above the average compared with other educational interventions.

The following table offers an overview of five basic emotional needs of students that need to be addressed to create a classroom environment for optimal learning and growth:[42]

Student Emotional Needs and Building an Affectively Healthy Learning Environment

Domains of Student Emotional Needs	Characteristics of an Affectively Healthy Learning Environment	What Teachers Can Do?
Psychological safety	Learners know what is expected, feel safe, and protected, are able to trust others and are able to anticipate or predict the sequence of events from experience.	• Establish clearly defined classroom procedures, policies and practices. • Act responsibly and confidences. • Maintain neat, clean and orderly physical conditions within the classroom.
A positive self-image	Learners have a strong sense of personal worth and feel capable of being loved and entitled to happiness.	• Give positive feedback that can help students to become aware of their strengths and areas for growth. • Build rapport with students. • Honor each child's uniqueness. • Demonstrate acceptance and caring.
Feelings of belongings	Learners feel that they are equal to others and they are accepted and valued as a member of something larger. The whole class is characterized by bonding, class cohesiveness and a sense of group pride.	• Create an accepting, warm classroom culture. • Reduce feelings of isolation or competition by involving students in classroom activities. • Provide students with opportunities to be of service to others.
Purposeful behavior	Learners bring meaning to their efforts and sustain an intrinsic joy of learning and the achievement of solving their own problems.	• Be a model to take responsibility for and initiative in the learning process. • Set challenging but achievable expectations. • Convey clear expectations. • Express confidence and faith in their students' abilities. • Strengthen values such as responsibility, effort, honesty, perseverance, determination, and commitment.
A sense of personal competence	Learners are attaining optimal learning and performance, both cognitively and affectively.	• Provide options of learning materials and tasks based on students' ability. • Be the support and the cheerleader for the students. • Recognize the efforts exerted and the growth achieved by individual students. • Provide constructive, informative feedback to help students become better. • Celebrate success.

Allington and Johnston observed and interviewed 30 fourth-grade literacy teachers in 24 schools from five states, who were identified as exemplary through a snowball nomination process.[43] These teachers' classroom talk was found to have the following characteristics:

- The classroom talk could be described as respectful, supportive, and productive and was not only modeled by the teacher in

interactions with students, but also deliberately taught, and expected.
- The talk between teacher and student was personalized and personal. Exemplary teachers used authentic conversation to learn about students. They encouraged students to engage each other's ideas. The authority was more distributed than centralized.
- "No" or "Yes" were rarely uttered by the teachers except in response to gross social transgression.

Effective teachers were found to maintain their management system by "monitoring and providing prompt feedback, pacing class activities to keep them moving, and by consistently applying classroom procedures and consequence."[44] Wang, Haertel, and Walberg analyzed a knowledge base comprising 11,000 statistical findings connecting a variety of variables and student achievement in order to answer the question: *What helps students learn?* They found effective classroom management was the one of the most influential variables in student learning. They concluded, "Effective classroom management increases student engagement, decreases disruptive behaviors, and makes good use of instructional time."[45] Their definition of effective classroom management included effective questioning/recitation strategies, learner accountability, smooth transitions, and teacher "with-it-ness."

Taylor et al. also found the most accomplished teachers were experts at classroom management. In general, they had well-established classroom routines and procedures for handling behavior problems, smooth transitions between activities, and a rapid rate of instruction, thus, allowing for high instructional density. They managed, on average, to engage virtually all (96%) of their students in the work of the classroom.[46]

Classroom management includes actions taken by teachers to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning.[47] Two key features of effective classroom management are:

1. Good management is preventive rather than reactive.
2. Teachers help create well-managed classrooms by identifying and teaching desirable behaviors to students.

Elements of effective classroom management include establishing routines and procedures to limit disruption and time taken away from teaching and learning, maintaining momentum and variety in instructional practices, and monitoring and responding to student activity. These elements contribute to students' active engagement in the learning process.[48] Research on the classroom management skills of effective teachers has consistently found that they establish routines for all daily tasks and needs. [49] Effective classroom managers orchestrate smooth transitions and continuity of momentum throughout the day to increase the amount of time spent on academic tasks. An exploratory study of effective versus ineffective teachers found that teachers whose students make greater achievement gains use more routines for everyday tasks than teachers whose students made less than expected achievement gains.[50] Most effective teachers admit that rules, procedures, and routines take precedence over academic lessons during the first week of school, noting that organization takes a considerable investment of time but has tremendous payback benefits.[51] Another research team noted that teachers who spend more time establishing instructional routines at the beginning of the school year did not need to exert as much effort on similar tasks later in the year.[52] The investment in initial organizational strategies yielded significant gains in reading scores throughout the year. In comparison, achievement gains were lower among students whose teachers did not demonstrate similar organization skills.

A study conducted by one research team found that students' perception of rule clarity and teacher monitoring are positively related to their development of academic interest in secondary school mathematics classes.[53] Another empirical study revealed that the top quartile teachers (i.e., the most effective teachers as identified by the high academic achievement of the students they taught) were more organized with efficient routines and procedures for daily tasks, and they communicated higher behavioral expectations to students than ineffective teachers. The top teachers also were found to have less disruptive student behaviors (on average, once every two hours) than did the less effective teachers (on average, a disruption every 12 minutes).[54] Disruptive behavior takes away precious classroom learning time. Teachers who can implement effective classroom management can decrease disruptive classroom behaviors and increase student engagement in academic tasks. Disruptive behaviors are particularly problematic for classrooms in that they can interfere with learning, compete with instruction, create an unsafe learning environment, and make it less likely that students will achieve academic objectives.[55] Teachers often report disruptive behavior as a major classroom concern. Based on a poll of the America Federation of Teachers, 17% of responding teachers said they lost four or more hours of teaching time per week due to disruptive student behavior.[56]

Goldstein stated that teachers may inadvertently contribute to student misbehavior if they do not know how to effectively use praise, attention, reward, privileges, differential attention, time out, and punishment.[57] Some common mistakes made by teachers are using behavior management techniques inconsistently, having unrealistic expectations, inadvertently reinforcing undesirable behavior, and modeling negative behavior. For example, when attempting to manage problem behavior, teachers may pay attention to a child when the child is noncompliant and withdraw the attention when the child is compliant. Teachers may also over-rely on punishment, most frequently reprimands, rather than positive reinforcement.

Sample performance indicators for the professional knowledge of teachers

7.1 Responds to disruptions in a timely, appropriate manner.
7.2 Establishes clear expectations for classroom rules, routines, and procedures and enforces them consistently and appropriately.
7.3 Models caring, fairness, respect, and enthusiasm for learning.
7.4 Promotes a climate of trust and teamwork within the classroom.
7.5 Promotes respect for and understanding of students' diversity, including – but not limited to – race, color, religion, sex, national origin, or disability.
7.6 Actively listens and pays attention to students' needs and responses.
7.7 Creates a warm, attractive, inviting, and supportive classroom environment.
7.8 Arranges the classroom materials and resources to facilitate group and individual activities.

Sample student evidence that the teacher has met the criteria for proficiency

- Follow classroom procedures consistently, contributing to a safe and orderly environment.
- Show respect for classmates and the teacher.
- Expect consequences for inappropriate behaviors because they are informed.
- Work well with others.
- Report that the teacher recognizes them as unique learners and strives to acknowledge their differences.
- Engage in discussions of differences.
- Be receptive to working with other students from all groups.
- Receive and give regular acknowledgements, celebrations, and recognitions.

Sample discussion prompts

- What are some examples of the ways you make connections with your students?
- How have you strived this year to make your classroom an inclusive one?
- What is your process for developing classroom rules and procedures?
- How do you address inappropriate behavior?
- How do you recognize and celebrate diversity in your classroom?
- How do you encourage students to celebrate other students' success?

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Teacher Self-Assessment Checklist **Performance Standard 7: Positive Learning Environment**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Caring	Show concerns for students' emotional and physical well-being.				
	Create a warm and supportive classroom climate.				
	Respond to misbehavior on an individual level and privately.				
Fairness and respect	Prevent situations in which a student loses peer respect.				
	Treat students fairly.				
	Create situations for all students to succeed.				
	Show respect to all students.				
Interactions with students	Maintain professional role while being friendly.				
	Give students responsibility.				
	Value what students say.				
	Encourage student cohesiveness and cooperation.				
	Emphasize functional communication between teacher and students and among fellow students.				
Classroom Management	Use consistent and proactive discipline.				
	Establish rules, routines, and procedures early on in the school year.				
	Orchestrate smooth transitions and continuity of classroom momentum.				
	Is aware of all activities in the classroom.				
	Anticipate potential problems.				
	Use space, proximity, or movement around the classroom for nearness to trouble spots and to encourage attention.				
	Prepare materials in advance and have them ready to use.				
	Organize classroom space efficiently to support learning activities.				
	Manage the physical factors (e.g., spatial environment, visual environment) to optimize student learning.				
	Use effective questioning, smooth transitions, and challenging but interesting activities to increase student engagement and minimize disruption.				
Discipline of students	Interpret and respond to inappropriate behavior promptly.				
	Implement rules of behavior fairly and consistently.				
	Reinforce and reiterate expectations for positive behavior.				
	Use both punishment and positive reinforcement to encourage desirable student behavior.				

Fact Sheet #10 - Performance Standard 8: Academically Challenging Environment

ACADEMICALLY CHALLENGING ENVIRONMENT

The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.

The nature of classroom climate is a function of numerous variables, for instance, the implicit rules of the group structure, the style of leadership of the dominant members of the group, norms, cultural traditions, expectancies, affective history, and demographic composition of the group members.[1] Based on research findings, Evans, Harvey, Buckley, and Yan also concluded that classroom climates described as positive have been found to be related to important educational outcomes such as enhanced academic achievement, constructive learning processes, and reduced emotional problems. Nevertheless, classroom climates can also be negative and toxic and related to undesirable outcomes, such as increased bullying and aggression and social and emotional maladjustment.[2]

Learning can be viewed as a cognitive development process in which individuals actively construct systems of meaning and understanding of reality through their interactions and experiences with their environments.[3] In this cognitive developmental process, a quality learning environment is crucial to students' learning, and it is the teacher's responsibility to create conditions of active engagement in the classroom. It is not surprising to see that every decision that effective teachers make and every action they take in their classrooms, either instructional or managerial, serve the ultimate purpose of student academic learning and growth.

Various studies have found that students' perceptions of the classroom environment explain a substantial amount of variance in student achievement, after controlling for their background characteristics, across grade levels, and across subject areas.[4] Classroom learning environment is associated with students' academic behaviors and academic achievement. Students are more engaged with their learning when they receive high expectations, believe that being in school will enable them to do something positive in their lives, have the ability to learn new things, create new challenges, and prepare them for college.[5] A study by Barth et al. found that negative classroom environments are associated with a lack of academic focus and lower student outcomes.[6] Various teacher characteristics that are identified as contributing to positive climate relate to teaching methods – both instructional strategies and discipline management skills – for instance, clear and well-structured procedural rules, together with opportunities for active participation and engagement.[7] To illustrate:

- Effective teachers implement effective classroom management to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning.[8]
- Classroom activities have an academic focus. The teacher protects instruction from disruption and makes the most out of every instructional moment. Additionally, the teacher orchestrates smooth transitions and maintains momentum throughout teaching and learning.[9]
- The teacher assumes responsibility for student learning, sets high (but reasonable) expectations for all students, and supports students in achieving them. The teacher uses effective questioning and challenging, but interesting, activities to increase student engagement in learning and student accountability.[10]

The following set of attributes of high quality learning environments, drawn from the socio-

cultural constructivist perspective, are helpful in describing prominent attributes of an academically robust learning environment:

- *Active engagement*: learners are directly involved in actions that support cognition and intentional learning.
- *Authenticity and relevance*: learners attribute value to the learning task and see the relationship between the knowledge to be gained and their personal life.
- *Collaboration and community*: noncompetitive social interaction of learners with others about the nature of the content and its meaning to themselves and others allowing for the co-construction of knowledge.
- *Learner autonomy*: the learner has some degree of control over or self-selection of the content or methods of learning.
- *Cognitive complexity*: learning tasks are sufficiently representative of reality, with a myriad of web-like interacting forces that must be organized and made sense of.
- *Generativity*: learner engagement in disciplined inquiry that involves using existing knowledge to discover or formulate new ideas, concepts, or information.
- *Multiple perspectives*: experiences allow learners to see the same information in different ways, from different points of view or use it for different purposes.
- *Pluralism*: learners develop a flexible view of reality, rather than a fixation on one single view of reality as correct.
- *Reflectivity and metacognitive awareness*: learners think about their own learning processes, are involved in identifying strategies to increase their learning, and self-monitor progress.
- *Self-regulation and ownership*: learners are and asked to assume personal responsibility for their own learning.
- *Transformation*: learners are expected to comprehend meaning and to use insights gained to reorganize, synthesize, or transform information into new forms or for some new purposes.
- *Productivity*: learners are expected to do something with knowledge required, or use it in some way that is beneficial to themselves or others.[11]

Building on the above attributes, practical instructional and managerial strategies that can help establish and maintain an academically robust learning environment include the following:

- Establishing a clear academic focus.
- Developing well-organized and well-planned lessons.
- Making explicit learning objectives.
- Maximizing instructional time.
- Pacing class activities and transitioning between tasks smoothly.
- Keeping students on task.
- Making learning meaningful.
- Identifying and communicating desirable behavior.
- Consistently applying rules and procedures.
- Monitoring student behavior.
- Taking preventive rather than reactive management actions.
- Building cooperation among teachers and students.
- Focusing on common interests and values;
- Pursuing common goals.
- Determining the appropriate level of task difficulty for students.
- Providing an appropriate instructional pace.[12]

An academically challenging learning environment is often reflected in the degree of teachers' expectations for student performance. When children come to school with lower levels of language and cognitive development, or more behavioral and attention problems, teachers frequently expect less from them, rather than providing them with a rich, challenging curriculum and supports for learning. The cycle of low expectations and low performance

perpetuates when students who are considered less able are required to read less and asked to recall only simple facts and events, while high performing students are challenged to engage in advanced cognitive learning. Holding high performance expectations has an important impact on teachers' instructional practices. By having reasonable expectations for students' growth, teachers can plan carefully linked experiences and provide the foundation for students to meet high expectations. The beliefs that teachers have about their students and their ability to learn can positively or negatively impact their actual learning. The reality is that "students typically don't exceed their own expectation, particularly with regard to academic work. But students will go beyond what they think they can do under certain conditions, one of which is that their teachers expect, challenge, and support them to do so."[13]

The expectations a teacher holds for students, whether consciously or subconsciously, are demonstrated through his or her interactions with the students during instruction.[14]Student academic performance is influenced by a teacher's expectations and goals for student achievement. In a study of 452 sixth graders, findings revealed that teachers' high expectations served as a significant predictor of student performance both socially and academically.[15]Rubie-Davies found that just by one single school year, the students' self-perceptions of their own abilities in academic areas altered substantially in line with teachers' expectations.[16] To make students experience challenges and success, the teacher provides opportunities to use existing skills and knowledge as well as attain new competencies.[17]

Teacher expectations do influence students' learning. The effects of teacher expectations are stronger among stigmatized groups, such as African American students and students from low income families. Students that are frequently the targets of lower expectations are typically most affected academically.[18] For instance, student perceptions of teachers' expectations are especially important to the academic engagement and efficacy of African American students. Tyler found that the emotional, behavioral, and cognitive engagement and efficacy of African American students were all predicted by their perceptions of teacher expectations.[19] However, it has also been found that teacher expectations for strong academic performance and educational attainment for ethnic minorities or low-income students are generally lower than those for their economically advantaged, European American counterparts.[20] Teacher expectations run short where they are needed most. Low teacher expectation of students was identified as one of the five main factors related to the underachievement of African American and Latino students.[21]

There are different ways that teacher expectations influence student achievement. First, teachers are likely to put forth greater effort when they perceive that they are teaching high ability students.[22] Secondly, according to Ferguson,[23] teacher perceptions and expectations are expressed (unconsciously) through the type of goals teachers set for students, the skills and resources used during instruction, as well as the types of reinforcement that teachers use in the classroom. Warren found that teachers' low expectations and lack of efficacy often resulted in lowered teaching standards, less teacher effort, and the use of watered-down curriculum for low achieving students, especially in poor urban schools.[24] That ultimately impacts students' achievement, academic engagement, and motivation. Through Cotton's review, a multitude of ways in which lowered teacher expectations manifest in the classroom were identified.[25] Students who are the target of teachers' low expectations are given fewer opportunities to learn new materials than high expectation students. The wait-time to answer a question is less than what is allotted for high expectation students. Low expectation students

are given the answers to questions or the teacher calls on some other students rather than giving them clues or repeating or rephrasing questions, as is done with high expectation students. Students with low teacher expectation receive inappropriate feedback (e.g., more frequent and severe criticism for failure; insincere praise) or reinforcement that is not a result of desired performance. They also tend to receive less friendly and responsive classroom interactions (e.g., less smiling, affirmative head nodding, leaning forward, and eye contact). They are provided briefer and less informative feedback, less stimulating and more lower-cognitive level questions, as well as less frequent use of effective and time-consuming instructional practices.

Additionally, students often recognize teacher bias and conform to teacher expectations. Children, from their years in school, are highly sensitive to differential teacher expectations and behavior. This type of sensitivity cuts across grades, gender, and ability levels. Research has suggested that students perceive low achieving students as typically receiving more vigilance directed towards them, fewer chances, more negative feedback and direction, more negative affect, and more frequent work- and rule-oriented treatment. In contrast, students typically perceive high achievers as being the recipients of higher expectations and academic demands, more emotional supports and special privileges, and increased opportunities to make choices.[26] This phenomenon can be particularly troublesome when teachers stereotype whole groups of students based on personal characteristics such as race or gender.[27] Teacher expectations are often connected to what is termed self-fulfilling prophecy. A self-fulfilling prophecy occurs when a false descriptions of a phenomenon induces a new behavior that leads to the originally false description coming true.[28] Hauser-cram et al. posited that children in stigmatized groups are more likely to have negative or low teacher expectations which likely lead to self-fulfilling prophecies of low academic performance.[29]

Sample performance indicators for the professional knowledge of teachers

8.1 Maximizes instructional time.
8.2 Conveys the message that mistakes should be embraced as a valuable part of learning.
8.3 Encourages productivity by providing students with appropriately challenging and relevant material and assignments.
8.4 Provides transitions that minimize loss of instructional time.
8.5 Communicates high, but reasonable, expectations for student learning.
8.6 Provides academic rigor, encourages critical and creative thinking, and pushes students to achieve goals.
8.7 Encourages students to explore new ideas and take academic risks.

Sample student evidence that the teacher has met the criteria for proficiency

- Transition smoothly and without disruption among small and large groups and independent learning.
- Use classroom space and resources efficiently to support their own learning and that of peers.
- Manage time and resources.
- Engage in learning activities for the entire class period.
- Work both independently and cooperatively in purposeful learning activities.
- Keep records of their own progress, behavior, and accomplishments.
- Analyze work against benchmarks and articulate why it meets, exceeds, or does not meet GPS/CCGPS.
- Monitor their behavior with teacher guidance, adjusting behavior when appropriate to support learning.
- Report that they feel successful and respected as learners.

Sample conference prompts

- How do you handle situations where students finish instructional tasks at varying rates?
- How do you plan for substitute teachers?
- What strategies do you use to get the class period started without time wasted?
- How have you sought guidance from colleagues or offered to help other teachers maximize instructional time?
- How do you provide feedback to students?
- How do you help students take responsibility for their own learning and behavior?
- How do you convince students to believe in themselves?

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Teacher Self-Assessment Checklist **Performance Standard 8: Academically Challenging Environment**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Academic Rigor	Focus classroom time on teaching and learning.				
	Maximize instructional time.				
	Limit disruption and interruptions.				
	Maintain momentum within and across lessons.				
	Carefully link learning objectives and activities.				
	Design challenging but achievable tasks that are relevant to students' lives and experiences, or to current events.				
	Develop objectives, questions, and activities that reflect higher- and lower- cognitive skills as appropriate for the content and the students.				
	Ensure the interactions in classroom have a task orientation.				
Student Motivation and Engagement	Link learning to students' real-life experiences.				
	Organize content for effective presentation.				
	Check student understanding and retain student attention by asking questions.				
	Consider student attention span and learning styles when designing lessons.				
	Be supportive and persistent in keeping students on tasks and encourage them to actively integrate new information with prior learning.				
	Let students have some degree of control over the content or methods of learning to encourage their ownership and autonomy of learning.				
High Expectations	Set clearly articulated high expectations for strong academic performance for all students, including the students who are ethnic minorities or from low-income families.				
	Orient the classroom experience toward improvement and growth.				
	Stress student responsibility and accountability.				
	Monitor student learning closely, and make certain that alternative teaching methods are in place.				

Fact Sheet #11 - Performance Standard 9: Professionalism

PROFESSIONALISM

The teacher exhibits a commitment to professional ethics and the school's mission and participates in professional growth opportunities to support student learning, and contributes to the profession.

Teacher professionalism encompasses key characteristics – professional competence, performance, and conduct – that reflect teachers' goals and purposes, capabilities, values and beliefs, and directly impact the effectiveness of teaching.[1] As a profession, teachers value and practice the principles, standards, ethics, and legal responsibilities of teaching.[2] And, as with any profession, they must be committed to and skilled in the areas of expertise that define teaching. Professionalism should reflect three essential elements of any true profession:

Three Essential Elements of Professionalism

Elements	Descriptions[3]
Professional standards and ethics of the profession	• Adhere to legal and ethical guidelines. • Adhere to standards defined for the profession. • Demonstrate professional demeanor and positive interaction with others. • Respect the diversity of ethnicity, race, gender, and special needs.
Continuous self-professional development	• Act as reflective practitioner. • Acquire and refine professional knowledge and skill. • Engage in ongoing professional renewal. • Act, as appropriate, as risk taker, stepping out of comfort zone. • Embrace practices of a life-long learner.
Contributions to the profession	• Serve as role model for other educators. • Serve on school, district, regional, and state educational committees, work groups, etc. • Participate in professional associations. • Contribute to the development of the profession (e.g., through presentations, writing).

Teaching seems to differ from many other professions and occupations in the aspect that the kind of person a teacher is, and the way he or she behaves, seem to have considerable implications for the professional practice.[4] For educators, students, and for the general public, good teaching is inconceivable as apart from the teacher's personal qualities. Teachers' daily practice is grounded in the beliefs, values, and attitudes they hold toward the profession, the students, the school, and themselves.[5] Carr posited that many of the skills featured in competence models of professional training – such as the abilities to match general curricular prescriptions to individual needs, to maintain student engagement and administer classroom management – depend on the teachers' ethical or personal qualities of empathy, care, respect, fairness, motivation, perseverance, and strong belief that they can succeed in making a difference in students' learning.[6]

Caring: Caring about students and respecting them as individuals are prevalent in the literature descriptions of effective teachers.[7]Caring is central to student learning – the glue that binds teachers and students together and makes life in classrooms meaningful.[8] Caring fosters a type of teacher-student connection that encourages possibilities for learning that may not otherwise occur.[9] Good teachers are often described as warm, friendly, and caring; conversely, ineffective teachers often are said to create a tense classroom and are described as cold, abusive, and uncaring.[10] When students perceive that their teachers care about them, they respond by "optimizing their commitment to learning and putting forth greater efforts to reach their potential."[11] In classroom learning, when students are supported by a caring teacher, they are more likely to ask questions, to take chances,

and to share their inner thoughts in creative writing and through other forms of expression.[12]

Teacher dispositions and beliefs are two other variables related to student achievement. They are important qualities that build up a teacher's professional demeanor. Carter used multiple data collection instruments, such as surveys, interviews, observations, and personal records, to develop a better understanding about the characteristics and dispositions of 99 effective teachers.[13] When these teachers were asked to list three characteristics of exceptional teachers, the most mentioned themes are as follows:

- Flexible, adaptable, will search for what works.
- Excellent management skills, organized, discipline issues, etc.
- Caring, compassionate.
- Love working with children, love children.
- Believe all children can learn at high levels, high expectations.

These exemplary teachers were then asked to report two strengths they possessed themselves. The most frequently mentioned strengths included being hard-working and dedicated, possessing excellent communication skills, being enthusiastic and energetic, and being caring and kind. Exemplary teachers regard the ethic of care and respect as a vital foundation for students' best learning and a prerequisite for effective teaching. They reach out to know their students by using multiple sources of knowledge (e.g., solicited critique, dialogues and questions, knowing students informally, knowing from colleagues, and knowing students' cultures).[14]Several studies sought the input of students themselves in identifying characteristics of highly effective teachers.[15] These studies revealed that students described effective teachers as caring, dedicated, motivating, encouraging, nurturing, supportive, and respectful.

Caring[16], self-efficacy[17], and enthusiasm[18] are just a few examples of teacher characteristics that have been demonstrated to influence both cognitive and affective learning. Classroom observations often reveal that effective teachers demonstrate more respect and caring for students than do less effective teachers.[19] Effective teachers use care and respect to build relationships with their students that are conducive to academic learning. Teachers' expressions of care not only enhance students' social skills and self-worth but also encourage their academic development.[20]When students perceive that their teachers care about them, they exert higher level of motivation, social responsibility, and affective learning[21]and they respond by "optimizing their commitment to learning and putting forth greater efforts to reach their potential."[22]

Enthusiasm and motivation: Enthusiasm and motivation are two essential attitudes that impact teacher effectiveness and, ultimately, student achievement. Enthusiasm "reflects the degree of enjoyment, excitement and pleasure that teachers typically experience in their professional activities."[23]Teachers who are more enthusiastic about teaching exhibit higher quality instructional behavior, such as monitoring student learning, providing students with more cognitive autonomy support, offering more social support to students, and using higher levels of cognitive challenge. Teacher motivation also is expressed in a range of teacher behaviors that are perceived to be conducive to student learning, such as enthusiasm in content area taught, interest about students' personal and developmental needs, participation in content-related activities outside of class time, and displaying value and emotion for students.[24]

Motivation and enthusiasm are contagious in classrooms. Teachers who display enthusiasm and energy in the classroom often increase student interest and motivation to learn.[25] Among various teacher variables, enthusiasm is

the most powerful unique predictor of students' intrinsic motivation and vitality. The students who received instruction from an enthusiastic teacher reported greater intrinsic motivation regarding the learning material and experienced higher levels of vitality.[26] They also exhibited higher rates of on-task behavior.[27]

Efficacy: In addition, researchers found positive associations between student achievement and three types of teacher efficacy-related beliefs: academic emphasis, faculty trust in students and parents, and teachers' collective efficacy beliefs about the school system.[28] Teachers of high self-efficacy set themselves higher goals and stick to them. They invest more effort and persist longer than those low in self-efficacy. A growing body of empirical evidence supports that teachers' self-perceived abilities to accomplish desired outcomes are related to the effort they invest in teaching, the goals they set, and their persistence when setbacks occur.[29] The reviews of research on teacher self-efficacy have summarized that teachers' self-efficacy is associated with their teaching practices in classrooms and student outcomes such as students' own self-efficacy beliefs and student engagement, motivation, and achievement.[30] Compared to teachers with lower self-efficacy beliefs, teachers with stronger perceptions of self-capability tend to use more challenging teaching techniques, try innovative strategies, and employ classroom instruction that are more organized and better planned, student centered, humanistic.

Professionalism and Professional Growth: Another key attribute of professionalism is a commitment to continuous improvement and perpetual learning. Interestingly, effective teachers monitor and strengthen the connection between their own development and students' development.[31] Evidence indicates that teachers who receive substantial professional development can help students achieve more. For example, based on the findings of one meta-analysis, teachers who receive substantial professional development (in this instance, 49 hours) can boost their students' achievement about 21 percentile points, and this effect size is fairly consistent across content areas.[32]

Effective teachers invest in their own education. They take responsibility for their own learning, actively engage in self-directed learning based on a set of established goals and in community with like professionals, they tend to become more self-directed and take responsibility for their own learning.[33]Hammerness et al. developed a framework of teacher learning. This framework envisions that teachers need to conduct professional learning in the following five domains: a *vision* for their practice; a set of *understandings* about teaching, learning, and children; *dispositions* about how to use this knowledge; *practices* that allow them to act on their intentions and beliefs; and *tools* that support their efforts.[34]

A Framework for Teachers' Professional Improvement[35]

Domain	Description	More Detailed Descriptions
Vision	Image of what is possible and desirable in teaching	A set of images of good practice that inspire and guide professional learning and practice.
Understanding	Deep knowledge of content, pedagogy, students, and social contexts	• Possess a coherent and rich conceptual map of the discipline (knowledge); an understanding of how knowledge is developed and validated within different social contexts (methods); an understanding of why the subject is important (purposes); and finally, an understanding of how one can communicate knowledge of that subject to others (form). • Understand students' thinking, experiences, development, and learning processes.

Tools	Conceptual and practical resources for use	• Theoretical tools include learning theories, frameworks, and ideas about teaching and learning, such as zone of proximal development, culturally relevant teaching. • Practical tools include particular instructional approaches and strategies, and resources such as textbooks, assessment tools.
Practices	Developing, practicing, and enacting a beginning repertoire	The knowledge and tools mentioned above need to integrate into a set of practices. These practices include a variety of instructional activities to promote student learning, such as designing and carrying out a lesson plan, explaining concepts, implementing problem-based learning, planning debates, providing feedback, etc.
Dispositions	Habits of thinking and action regarding teaching and children	These dispositions include reflection upon practice, taking an inquiry stance, determination and persistence in working with children toward success, which may be characterized by the inclination to take responsibility for children's learning and the will to continue to seek new approaches to teaching.

Effective teachers continuously practice self-reflection, self-evaluation and self-critique as learning tools. They are curious about the art and science of teaching and about themselves as effective teachers. They often portray themselves as students of learning. They learn by continuously studying their classroom experiences in an effort to improve practice. They constantly improve lessons, think about how to reach particular children, and seek and try out new approaches in the classroom to better meet the needs of their learners.[36] Reflection constitutes a disciplined way of thinking that entails calling into question one's existing beliefs and routines in light of new evidence and altering teaching behaviors accordingly.[37] By examining, or reexamining, the content and context of their own behaviors in the classroom they are able to refine or even alter what they do and how they do it. Some researchers define reflective teachers as introspective. They seek a greater understanding of teaching through scholarly study and professional reading. Effective teachers invite feedback; by eliciting information and criticism from others, they broaden their perspectives and gain insight to what may have been previously been missed. Through reflective practice, effective teachers monitor their teaching because they have a strong commitment to students learning and want to make a difference in the lives of students.[38]

Professionalism and Contributing to the Profession: Effective teachers act individually and collectively to advance the teaching profession, and act as shapers, promoters, and well-informed critics of educational policies, instructional innovations, and internal changes that impact on student learning.[39]Effective teachers are willing to share their ideas and assist other teachers with difficulties. They volunteer to lead work teams and to be mentors to new teachers. Effective teachers are informal leaders on the cutting edge of reform who are not afraid to take risks to improve education for all students.[40] Their opinions usually contribute to effecting positive changes at school or district level. A teacher can contribute to the teaching profession by engaging in various types of study, inquiry, and even experimentations to develop personal best practices. Individually, teachers are powerful resources to enrich the professional knowledge base about academic standards, curriculum, pedagogy, and assessment by reflecting and sharing personal knowledge of "what works" and "what does not work." Collectively, teachers can network with professional associations and collaborate with social/business agencies to advance overall school improvement.

Research also has found that an effective teacher:

- Links professional growth goals to professional development opportunities.[41]
- Is empowered to make changes to enhance learning experiences, resulting in better student retention, attendance, and academic success.[42]
- Selects professional development offerings that relate to the content area or population of students taught, resulting in higher levels of student academic success.[43]
- Is cognizant of the legal issues associated with educational records, and respects and maintains confidentiality.[44]

Sample performance indicators for the professional knowledge of teachers

9.1 Carries out duties in accordance with federal and state laws, Code of Ethics, and established state and local school board policies, regulations, and practices.
9.2 Maintains professional demeanor and behavior (e.g., appearance, punctuality and attendance).
9.3 Respects and maintains confidentiality.
9.4 Evaluates and identifies areas of personal strengths and weaknesses related to professional skills and their impact on student learning and sets goals for improvement.
9.5 Participates in ongoing professional growth activities based on identified areas for improvement (e.g., mentoring, peer coaching, course work, conferences) and incorporates learning into classroom activities.
9.6 Demonstrates flexibility in adapting to school change.
9.7 Engages in activities outside the classroom intended for school and student enhancement.

Sample student evidence that the teacher has met the criteria for proficiency

- Provide thoughtful feedback to teacher about new ideas and strategies tried by the teacher.
- Report that the teacher regularly adapts instruction to improve learning.
- Report that the teacher allows them to actively participate in lessons.
- Improve learning and achievement related to the teacher's learning.
- Report that the teacher and others at the school work together to support student learning.
- Offer their input toward school improvement through the teacher.

Sample conference prompts:

- What impact, if any, have professional interactions with colleagues such as collaboration, coaching, mentoring, or participating in professional learning community activities had on your professional development this year?
- How do you incorporate your professional reading and reflection into your professional practice?
- What has been your most meaningful professional learning experience this year?
- How has participation in professional learning impacted student achievement?
- How have you been involved in the school improvement process this year?
- In what ways has your practice been influenced by the school improvement process, if at all?
- How has student achievement been impacted by implementing the school improvement plan?

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Teacher Self-Assessment Checklist **Performance Standard 9: Professionalism**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Enthusiasm	Show joy for the content material.				
	Take pleasure in teaching.				
	Demonstrate interest about students' personal and developmental needs.				
Professional Standards and Ethics of the Profession	Adhere to legal and ethical guidelines, standards for the profession, and local school board policies.				
	Demonstrate professional demeanor and positive interaction with others.				
Professional Development	Involve in acts of searching and inquiring to find a solution that will solve problems encountered.				
	Demonstrate involvement in learning activities inside and outside school.				
	Assess and audit the gaps in professional practice.				
	Incorporate learning from professional development activities into classroom practice.				
Contribution to the learning community	Find, implement, and share new instructional strategies.				
	Network, share practices through dialogue, modeling, and demonstration within and across schools.				
	Share practices through mentoring, coaching, team teaching and shadowing.				
	Support school change and initiatives.				
Reflective Practice	Know areas of personal strengths and weaknesses.				
	Compare instructional practice to the best practices supported by extant research.				
	Engage in structured reflection and inquire into own practice.				
	Be analytical and evaluative about professional knowledge.				
	Set high expectations for personal classroom performance.				
	Demonstrate high efficacy.				

Fact Sheet #12 - Performance Standard 10: Communication

COMMUNICATION

The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

The ability to communicate and collaborate is one of the essential requisites for teacher effectiveness.[1] In fact, at the very core of effective teaching is effective communication. Extant research provides evidence that students taught by teachers with a high level of clarity learn more than those taught by teachers with lower clarity.[2] Teachers with high clarity are perceived to be more capable of conveying ideas effectively and communicating with students in a compelling manner. Closely connected to this notion is the concept of "instructional communication competence" which has been studied widely in educational research. Instructional communication competence was defined by Cornett-DeVito and Worley as:

> The teacher-instructor's motivation, knowledge, and skill to select, enact and evaluate effective and appropriate, verbal and nonverbal, interpersonal and instructional messages filtered by student-learners' perceptions, resulting in cognitive, affective and behavioral student-learner development and reciprocal feedback.[3]

One research team identified, interviewed, and observed 11 award-winning teachers to develop a better understanding of their instructional communication practices.[4] Their findings included the following themes related to communication practices in the classroom:

- *Understand the ebb and flow of the classroom* The teachers used instructional objectives to plan classroom activities effectively, but they were not constrained by predefined plans. They adapted to the flow of the class and allowed for spontaneity. Additionally, they used effective communication to orient students to learning and help them integrate new information with previously learned information.
- *Use a wide repertoire of communication skills* The teachers used a variety of communication behaviors, such as immediacy, humor, and clarity to sustain a positive and interactive environment.
- *Create relationships with students* The teachers communicated with students about shared experiences to establish interpersonal rapport, and they communicated in an approachable manner through proxemics, kinetics, knowing first names, etc. They also encouraged an open, warm, and communicative environment that invited students' comments, questions, and responses.

The communication skills of a teacher also play an important role in the collaboration with colleagues and other personnel in schools, and in the partnerships with parents and other community members. After all, teaching is communicating and, to a large extent, advocating for learners. Educating a child cannot be one person's work. Certainly, teachers must be responsible and accountable for what is under their control – the academic and nonacademic interactions with their students. Beyond this traditional responsibility, however, good teachers know they must reach beyond the walls of the classroom to solicit collaboration and support from school colleagues on behalf of their students. Furthermore, they understand the need to reach beyond the schoolhouse door to communicate and gain cooperation with families and others in a larger community.[5]

Effective collaboration empowers teachers to re-conceptualize themselves as change agents and advocates for their students. Some defining characteristics associated with the important roles of collaborator and advocate are:

- Being an advocate of better strategies for meeting students' learning needs, by being an active learner who seeks, applies, and communicates professional knowledge of curriculum, instruction, assessment, and student development.
- Being an advocate of teaching as a profession by appreciating and practicing principles, ethics, and legal responsibilities.
- Being an advocate for the well-being of the whole educational organization by initiating, valuing, and maintaining collaboration and partnerships with various stakeholders.[6]

Effective teachers not only communicate competently with their students, but also they communicate actively with their professional peers to share best practice, seek advice and suggestions, and conduct collaborative inquires. Change is the constant theme in today's education, and teachers are increasingly challenged to keep abreast of innovations and new developments. They need to communicate with colleagues or others who possess needed information.[7]

Teachers who have a democratic vision about their profession act collaboratively and cooperatively with colleagues and other educational stakeholders. They no longer confine their responsibility to the particular classroom in which they teach; rather, they are committed to making a contribution to the students taught by other teachers, in the school, the district, and the community by and large.[8]Michael Fullan corroborated this vision by proposing that teacher preparation programs should enable each teacher to initiate, value, and practice collaboration and partnerships with students, colleagues, parents, community, government, and social and business agencies.[9] Additionally, teachers of democratic professionalism serve as advocates for the well-being of the educational cause. They act individually and collectively to effect social justice and equity in teaching and learning. They are engaged in purposeful and critical reflection and dialogues with others on issues that have immediate impact on day-to-day classroom teaching, as well as larger issues and contexts that have indirect influence on social equity in education.[10]

Research findings show that teachers who effectively collaborate often:

- Possess strong communication skills.[11]
- Offer clear explanations and directions.[12]
- Recognize the levels of involvement ranging from networking to collaboration.[13]
- Use multiple forms of communication between school and home.[14]
- Use informal contacts at school events, the grocery store, and at other community places to keep the lines of communication open.[15]

In addition, involvement of families and community can help students become more focused on academic learning. A growing body of research suggested that creating more connections and greater cooperation among the school, family, and community contexts could improve student behavior and discipline, enhance students' academic success, and reinforce stronger self-regulatory skills and work orientation.[16] Epstein asserted that students are influenced by three spheres of influence: family, school, and community contexts in which the students develop.[17] The extent to which these three contexts overlap is contingent upon the nature and degree of communication and collaboration among school educators, parents, and community members. A meaningful and purposeful overlap is conducive to better student learning. School teachers play an important role in ameliorating such overlap. Research indicates that among various factors (such as resources, parents' sense of efficacy, etc.) parents' perceptions of teacher invitation have the most significant influence on their decision to be more involved with their children's education.[18] Teachers can increase family and community

involvement through the following collaborative activities:[19]

- Helping families establish home environments to support children as students.
- Designing effective forms of school-to-home and home-to-school communication.
- Recruiting and organizing families to help the school and support students.
- Providing families with information and ideas to support students with homework.
- Including parents in decision-making and developing parent leaders.
- Identifying and integrating resources and services from the community to strengthen schools, students, and families.

LePage also suggested some effective ways to improve teacher-parent communication.[20] They include home visits, frequent positive calls home (not centering on students' academic problems, misbehavior, or negative attitudes), on-line connections for homework and information sharing, parent-teacher-student conferences, exhibitions of student work, and parent participation in school activities.

Sample performance indicators for the professional knowledge of teachers

10.1 Uses verbal and non-verbal communication techniques to foster positive interactions and promote learning in the classroom and school environment.
10.2 Engages in ongoing communication and shares instructional goals, expectations, and student progress with families in a timely and constructive manner.
10.3 Collaborates and networks with colleagues and community to reach educational decisions that enhance and promote student learning.
10.4 Uses precise language, correct vocabulary and grammar, and appropriate forms of oral and written communication.
10.5 Explains directions, concepts, and lesson content to students in a logical, sequential, and age-appropriate manner.
10.6 Adheres to school and district policies regarding communication of student information.
10.7 Creates a climate of accessibility for parents and students by demonstrating a collaborative and approachable style.
10.8 Listens and responds with cultural awareness, empathy, and understanding to the voice and opinions of stakeholders (parents, community, students, and colleagues).
10.9 Uses modes of communication that are appropriate for a given situation.

Sample student evidence that the teacher has met the criteria for proficiency

- Observe that both school and home share common expectations for their progress and well-being.
- Give examples of how the teacher involves their families in classroom activities on a regular basis.
- Report that the teacher initiates contacts with their families regularly for both positive and feedback and concerns.
- Are comfortable having the family members visit the classroom.

Sample conference prompts:

- How did you involve family members and community partners in your classroom?
- What do you find is the most effective way to contact family members of your students? Why do you think this is the most effective method?

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Teacher Self-Assessment Checklist **Performance Standard 10: Communication**					
Quality		**Exemplary**	**Proficient**	**Needs Development**	**Ineffective**
Communication Skills	Explain content with a high level of clarity in classroom.				
	Explain rules, expectations, and concepts in a logical, sequential, and age-appropriate manner.				
	Use a wide repertoire of communication behaviors (such as immediacy, humor) to sustain a positive and interactive learning environment.				
	Encourage an open, warm, communicative climate in classroom that invites students' comments, questions, and responses.				
	Exhibit active listening.				
Parental Involvement	Display interest and concern about the students' lives outside school.				
	Keep a log of parent communication.				
	Provide a description of record-keeping system and how it is used to inform parents, students, and administrators.				
	Create a climate of accessibility for parents and students.				
	Share instructional goals, expectations, and student progress with families in a timely and constructive manner.				
	Use a variety of strategies to encourage parent-teacher communication and connections, such as home visits, frequent positive calls home, parent-teacher-student conferences, exhibitions of student work, and parent participation in school activities.				
	Outreach parents who have social, economic, racial, and/or language barriers to get involved in their children's education.				
Collaboration	Participate in collegial activities.				
	Reduce isolation and develop a more consistent curriculum through collaboration with peers from the same grade level and subject level.				
	Share knowledge and engage in collaborative problem-solving.				
	Interact with and solicit feedback from colleagues, parents, and students.				
	Collaborate and network with colleagues to reach educational decisions.				
	Collaborate with the community to identify and integrate resources and services that can support student learning.				

Fact Sheet #13: Multiple Data Sources

DOCUMENTING TEACHER PERFORMANCE WITH MULTIPLE DATA SOURCES

Use of Multiple Data Sources

Documentation is the process of recording sufficient information about the teacher's performance to support ongoing evaluation and to justify any personnel decisions based on the evaluation. The basic question is: How will the teacher demonstrate performance of the identified standards?[317] The complexity of professional roles in today's schools requires a performance evaluation system that reflects that complexity of the job. Given the complexity of teachers' work, attempting to document the work with one method or data source simply is not sensible or feasible. Peterson et al. concisely provided the rationale for using multiple data sources in teacher evaluation when they stated, "no single data source works for all persons…because good teaching comes in a variety of forms and styles."[318] Multiple data sources enable the supervisor to obtain a more accurate picture of performance and assist the teacher in increasing student success.

Using multiple data sources in the teacher evaluation process offers numerous advantages over single source data collection processes[319]. Some of the advantages are:

- A more complete portrait of a teacher's performance.
- Data collection in more naturally occurring situations. Integration of primary and secondary data sources in the evaluation.
- Greater objectivity and reliability in documenting performance.
- Documentation of performance that is more closely related to actual work.
- A more legally defensible basis for evaluation decisions.
- More teacher support and involvement in teacher evaluation when they feel that it is pertinent to their own performance and fair in its use of information in their individual case.

What Data Sources Will Be Included in the *Teacher Assessment on Performance Standards (TAPS)*?

Required:

The following types of data sources are required components in TAPS for documenting teacher quality. The rich data about teacher performance provided by these sources will identify areas of individual strengths and weaknesses and inform appropriate professional activities.

- Formal Observations: The evaluator conducts a structured, planned observation — either announced or unannounced — typically of a teacher who is presenting a lesson to or interacting with students.
- Informal Observations: Informal observations, such as the walkthroughs/frequent brief observations, are intended to provide more frequent information on a wider variety of contributions made by the teacher. Evaluators are encouraged to conduct informal observations by observing instruction and work in non-classroom settings.
- Documentation: This includes artifacts that provide documentation for the teacher performance standards. Documentation should emphasize naturally occurring artifacts from teachers' work (i.e., lesson plans, instructional units, student assessment).
- Surveys of Instructional Practice: Student survey results will inform the rating of standards 3, 4, 7, and 8 at the Formative and Summative Level and will impact the TEM score.

The following information sources may also be useful in documenting teacher performance. These suggested data sources for teacher

evaluation can be used for both tenured and non-tenured teachers.

- Self-Assessment: Self-assessment is a process that teachers reflect on their practice in order to understand, critique, and improve it.
- Other data sources (e.g., conferences, examination of student work, learning team meetings, conversations with students and parents, etc.) that are perceived as appropriate by the local school districts.

How will Multiple Data Sources be used in the Evaluation?

Some teacher standards are better documented through classroom observation (e.g., Instructional Strategies or Positive Learning Environment) whereas other standards may require additional documentation. For example, Standard 2 – Instructional Planning - may necessitate review of the teacher's lesson plans and Standard 5 - Assessment Strategies - may necessitate review of the teacher's classroom assessments. Such evidence often is collected by the teacher and presented in documentation as a complement to the supervisor-conducted observations.

These data sources are not stand-alone, but are complementary to each other and should be integrated in the process of evaluation to provide a richer portrait of teacher performance. The flaws of one data source are often the strengths of another, and by combining multiple sources, evaluators can make more solid judgments regarding teacher performance and make decisions that are supported by multiple types of data. For instance, when comparing observations, documentation can contain a variety of materials that reflect many of the tasks of teaching (either within or without the classroom) and provide evidence related to standards of performance that are easily observable.

Good evaluation and supervision uses a combination of data sources to gauge teachers' performance on the standards.[320] In contrast with traditional teacher evaluation systems which depend on checklists and obligatory yearly classroom observations, the *TAPS* intends to use different data sources to engage teachers in ongoing assessments that continually provide feedback and the opportunity to examine knowledge, practices, and effectiveness so that they may continue to grow as professionals.

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Fact Sheet #14–Observation

OBSERVATION AS A DATA SOURCE FOR TEACHER EVALUATION

Introduction

Observations are intended to provide information on a wide variety of contributions made by teachers in the classroom or to the school community as a whole. Observations can be conducted in a variety of settings and take on a variety of forms, including quick, drop-by classroom visits, to more formal, pre-planned observational reviews, using validated instruments for documenting observations.[1]Furthermore, observations may be announced or unannounced. Evaluators are encouraged to conduct observations by observing instruction and non-instructional routines at various times throughout the evaluation cycle.

Formal Observation: During a *formal observation,* the evaluator conducts a structured or semi-structured, planned observation – either announced or unannounced – typically of a teacher who is presenting a lesson to, or interacting with, students. Evaluators can use formal observations as one source of information to determine whether a teacher is meeting expectations for performance standards. Typically, the evaluator provides feedback about the observation during a review conference with the teacher. Formal classroom observations should last a specified period of time – for example, 30 or 45 minutes, or the duration of a full lesson. For maximum value, the building level administrator should ensure that formal observations occur throughout the year.

Informal Observation: Informal Observation/Walkthroughs: *Informal observations* including walkthroughs are intended to provide more frequent information on a wide variety of contributions made by teachers in the classroom or to the school community as a whole. Evaluators are required to conduct informal observations by observing instruction and non-instructional routines at a minimum of four classroom visits per year per teacher throughout the evaluations cycle. Walkthroughs shall be 10-15 minutes in length each. The electronic platform will assist evaluators in capturing walkthrough documentation. Walkthroughs will be used as a documentation data source for formative assessments and to serve as evidence which supports and enhances the TKES standards ratings in formative or summative assessments. Additionally, walkthroughs should be used as a means to connect with School Improvement Plans and/or specific TKES standards (i.e., Differentiation, Assessment Uses) or behavioral indicators. These informal observations typically are less structured than formal observations. An important factor for evaluators to remember when collecting informal observation data is to focus on specific, factual descriptions of performance and to obtain a representative sampling of performance observations through regular, repeated visits to classrooms.[i]

Advantages of Observation

Observations, including formal and informal observations, are intended to provide direct, naturalistic information on the work of a teacher, student behaviors, and the dynamic interactions between teacher and learners. In addition to classroom observations, observations can be conducted in a variety of job-relevant settings (for example, a conference with a parent, a committee meeting, or a presentation to the school staff).

Concerns about Observation

Observations are an important source of teacher performance information, but should never be used as a sole source for documenting evaluation

performance. Direct observation has major limitations, such as:

- The artificial nature of scheduled observations (when a special lesson is prepared for a special classroom visit).
- The limited focus of teacher duties and responsibilities that may be observed in a given time period.
- The infrequency of the observations.
- Only a portion of the full repertoire of teacher duties and responsibilities can be observed (e.g., selected teacher responsibilities may not be performed during the classroom visit).
- Teachers lack of confidence in the competency of some evaluators.
- Evaluators inflated rating and limited feedback in some situations..

Given the complexity of the job responsibilities of teachers, it is unlikely that an evaluator will have the opportunity to observe and provide feedback on all of the performance standards in a given visit. If the purpose of a teacher evaluation system is to provide a comprehensive picture of performance in order to guide professional growth, then classroom observations should be only one piece of the data collection puzzle.

How is Observation Aligned with Teacher Standards?

Observation may obtain a sample of a teacher's performance, in or out of the classroom, on elements of all the ten identified standards.

[1]Stronge, J. H. (2010). *Evaluating what good teachers do: Eight research-based standards for assessing teacher excellence*. Larchmont, NY: Eye on Education.

[i]Stronge, J. H., & Tucker, P. D. (2003).*Handbook on teacher evaluation: Assessing and improving performance.* Larchmont, NY: Eye on Education.

Fact Sheet #15–Documentation

DOCUMENTATION AS A DATA SOURCE FOR TEACHER EVALUATION

Introduction

Documentation of a teacher's performance can serve as valuable and insightful evidence for detailing the work that teachers actually do. Evaluators may request documentation when a standard is not observed during an announced or unannounced observation. Documentation should emphasize naturally-occurring artifacts from teachers' work (i.e., lesson plans, instructional units, student assessments).

Documentation of teacher practice and process is an important part of a comprehensive approach for documenting teacher performance. Generally, a teacher's evaluation documentation is considered to be "a structured collection of selected artifacts that demonstrate a teacher's competence and growth".[1] Documentation serves as a system for collecting data and recording work quality during each evaluation cycle. Specifically, the documentation houses pertinent data that confirms the teacher meets the established performance standards. Written analysis and reflection about artifacts often are included in the documentation to provide insight into the rationale for the events and process documented in each entry. Documentation is designed to serve as a complement to other data sources in order to provide a fuller, fairer, more comprehensive view of teacher performance.

Advantages of Documentation

- The artifacts included in documentation provide evaluators with information they likely would not observe during the course of a typical classroom visit.
- Documentation provides the teacher with an opportunity for self-reflection, demonstration of quality work, and a basis for two-way communication with an evaluator. Tucker, Stronge, and Gareis discussed the beneficial nature of documentation by pointing out it is:

  "Appealing for many reasons, including their authentic nature, recognition of the complex nature of teaching, encouragement of self-reflection, and facilitation of collaborative interaction with colleagues and supervisors… [It embodies] professionalism because it encourages the reflection and self-monitoring that are hallmarks of the true professional."[2]

Concerns of Documentation

- When goals and standards are not determined, the result can be unfocused and haphazard. The materials included could be idiosyncratic and biased.
- Documentation process can be time-consuming for the teacher and the evaluator. Documentation allows teachers to represent the complexities and individuality of their teaching. This is problematic, however, for the same reason

How Is Documentation Aligned with the Teacher Standards?

Documentation contains a broader, more comprehensive collection of naturally-occurring materials than other data sources. A variety of evidence may go into documentation, such as: student work; unit/lesson plans; student assessments; evidence of professional development activities; professional publications; recording of teaching; samples of instructional materials; diagrams of classroom arrangement; summary of analysis on longitudinal student test scores; evidence of help given to colleagues; information from others, such as observation of teaching by qualified others; and significant correspondence and memos.[3] Therefore, it is capable of providing teachers with an opportunity to demonstrate

professional competence with regard to meeting standards identified in the evaluation system.

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[1]Tucker, P. D., Stronge, J. H., &Gareis, C. R. (2002).*Handbook on teacher portfolios for evaluation and professional development.* Larchmont, NY: Eye on Education. p. 3; Wolf, K. (2006). Portfolios in teacher evaluation.In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp.168-185). Thousand Oaks, CA: Corwin.
[2]Tucker, P. D., Stronge, J. H., &Gareis, C. R. (2002).
[3]Airason, P. W. &Gullickson, A. (1997).*Teacher self-evaluation tool kit.* Thousand Oaks, CA: Corwin.

Fact Sheet #16: Self-Assessment

DOCUMENTING TEACHER PERFORMANCE WITH SELF-ASSESSMENT

Introduction

Self-assessment is a process by which teachers judge the effectiveness and adequacy of their performance, effects, knowledge, and beliefs for the purpose of self-improvement.[1] When teachers think about what worked, what did not work, and what type of changes they might make to be more successful, the likelihood of knowing how to improve and actually making the improvements increases dramatically.[2]

Kremer-Hayon identified five major areas that are typically the foci of teacher self-assessment: classroom goals and objectives, learners, subject matter concerns, classroom achievement and progress, and teaching strategies.[3] Effective teacher self-assessment has two distinguishing characteristics:[4]

- A clear expectation for systematic data gathering and interpretation.
- A strategy to validate self-assessment using credible external evaluative sources (e.g., student academic progress).

Aiarasian and Gullickson offered several strategies to enhance teachers' self-assessment: [5]

Self-reflection tools: These involve check lists, questionnaires, and rating scales which are completed by the teacher to evaluate performance in terms of beliefs, practice, and outcomes.
Media recording and analysis: Audio and video recordings provide a useful method for the teachers and their peers to review and analyze a teacher's performance.
Student feedback: Surveys, journals, and questionnaires can provide a teacher with the students' perspective.
Documentation: Teachers have an opportunity for demonstrate their performance as they collect and analyze the various artifacts for documentation.
Student performance data: Teachers can assess their instructional effectiveness by using test results, projects, essays, and so forth.
External peer observation: Colleagues, peers, and administrators can provide useful feedback on particular aspects of another teacher's behavior.
Journaling: Teachers can identify and reflect on classroom activities, needs, and successes by keeping track of classroom activities or events.
Collegial dialogue/experience sharing/joint problem solving: By collaborating on strategies, procedures, and perceptions, teachers are exposed to the practices of colleagues, which can serve as a catalyst for them to examine their own practices.

Advantages of Self-Assessment

Self-assessment is a critical component of the evaluation process and is strongly encouraged based on the following advantages:

- Give teachers more "voice" and control about their professional growth.
- Make teachers more responsible for demonstrating their own competence.
- Provide opportunities for teachers to enhance reflection, understanding, and improvement of practices, and make teachers more likely to question their taken-for-granted expectations, norms, beliefs, and practices.[6]

Concerns of Self-Assessment

There are many personal and situational factors that can present barriers to the conduct of valid, meaningful self-assessment, such as:[7]

- A variety of formal self-assessment strategies (such as peer observation) are not adopted because the lack of time to implement, analyze, and interpret the information provided.

- Motivation and willingness to participate and persevere in self-assessment depends on personal (e.g., ability of reflection, sense of self-efficacy) and organizational (e.g., collegial and administrative support, trust and openness) factors.
- The standards and criteria used for self-assessment by individual teachers tend to be tacit, idiosyncratic, and changeable. Teachers tend to use spontaneous and intuitive judgments rather than more formal standards.

How is Self-Assessment Aligned with the TAPS Teacher Standards?

Self-assessment can be used by teachers to judge the adequacy of their beliefs, knowledge, skills, and effectiveness in all the ten identified standards. It can lead to a self-initiated formative evaluation where teachers develop awareness, reflect on, and improve their performance on each standard.

[1] Airason, P. W. & Gullickson, A. (2006). Teacher self-evaluation. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 187-211). Thousand Oaks, CA: Corwin.
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[5] Airasian, P. W. & Gullickson, A. (2006).
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Fact Sheet #17: Surveys of Instructional Practice

DOCUMENTING TEACHER PERFORMANCE WITH STUDENT SURVEYS

Introduction

The purpose of student surveys is to collect information that will help the teacher set goals for continuous improvement and to provide feedback for professional growth and development. Called **Surveys of Instructional Practice**, the student surveys within the Georgia Teacher Keys Effectiveness System provide student perception data as an additional source of documentation of teacher performance for four of the ten performance standards within the TAPS component of the system. These four standards reflect the direct experience of students in classrooms: Instructional Strategies, Differentiated Instruction, Positive Learning Environment, and Academically Challenging Learning Environment. Student survey data will be used by administrators as an additional source of documentation of teacher performance for completing the formative and summative assessment.

Student surveys provide information that may not be accurately obtained in classroom observations. Aleamoni recommended student feedback as a main source of information about (1) accomplishment of major educational goals, such as increased motivation; (2) rapport between students and the teacher; (3) elements of a classroom, such as the textbook, the homework, and instruction; and (4) communication between the students and the teacher.[1]

Three different surveys designed to match the developmental level of students (one each for Grades 3-5, Grades 6-8, and Grades 9-12) will be administered according to a detailed Survey Administration Protocol published annually by the Georgia Department of Education. Survey data will be collected through a process that matches students with their teacher(s) of record. All surveys will be completed anonymously to promote honest feedback. Purposeful question construction will prompt students to electronically select only one response per survey statement with no additional commentary.

Teachers who teach self-contained classes (e.g., elementary teachers, special education teachers) will have all the students in their class surveyed. For departmentalized teachers (e.g., middle and high school teachers, elementary PE and music teachers) the site administrator will select the appropriate classes.

All appropriate accommodations will be made for students with disabilities and English Language Learners, based on Individual Education Plans (IEPs) or language instruction education plans (extended time, read aloud, dual language dictionaries, etc.). Severe/Profound special education students, if sampled for participation in the surveys, may or may not participate, with needed accommodations, as determined to be appropriate by the IEP committee. Surveys will be read to Visually Impaired students. Auditory devices may also be utilized. The use of a toggle switch within the electronic platform will allow the survey to be read through headphones for students requiring the accommodation.

District and site administrators will identify a time frame each school year or each semester in which to administer the surveys. Teachers of record will not be involved in administering the survey to their own students; rather, a certified specialist (e.g., media specialist, instructional technology specialist) will administer the survey in a common media center or computer lab, if at all possible. All surveys will be administered using a vendor-hosted electronic platform. The surveys will be accessed through a web-based portal.

Survey results will be analyzed by the Georgia Department of Education and reported to the principal, the district, and teacher.

Advantages of Student Surveys

Student surveys provide information about students' perceptions of how she or he is performing. There is ample evidence to support the use of student surveys in teacher evaluation.

- Students are the primary consumers of the teacher's services. They have direct knowledge about classroom practices on a regular basis. Students have the breath, depth, and length of experience with the teacher. They are in the key position to provide information about teacher effectiveness.[2]
- Students' perceptions are beneficial for teacher improvement. Teachers look to their students rather than to outside sources for indications of their teaching performance.[3]
- Student observations of teachers are unobtrusive and occur in the most naturalistic settings.[4]
- Students have the ability to provide perspectives that principals cannot offer. They also have the ability to rate teachers reliably. Researchers compared students' ratings of meritorious and non-meritorious teachers with ratings from expert practitioners. They concluded that the students were able to discriminate between the two groups as well as the qualified evaluators.
- Researchers also compared the validity of ratings by students, principals, and the teachers, themselves. **They found students' ratings were the best predictor of student achievement, thus demonstrating that students provide valid feedback on teacher performance.[5]**

Concerns about Student Surveys

While incorporating student data into teacher evaluation, several issues need to be taken into consideration:

- Student surveys should be restricted to descriptions of life in the classroom.
- Student surveys should be based on discrete and visible behaviors as a way to increase reliability.
- Student survey data for several years may be needed to establish patterns of performance.[6]
- The Survey Administration Protocol must be carefully followed.
- The Georgia Code of Ethics for Educators requires all teachers to follow all GaDOE required testing protocols and procedures to ensure the integrity of the survey data is not compromised.

How Are Surveys of Instructional Practice Aligned with the TAPS Teacher Standards?

Students will answer questions that address teacher performance for standards to which they can respond from personal experience in the classroom. Called **Surveys of Instructional Practice**, the student surveys within the Georgia Teacher Effectiveness System provide student perception data as an additional source of documentation of teacher performance for four of the ten performance standards within the TAPS component of the system. These four standards reflect the direct experience of students in classrooms: 3. Instructional Strategies, 4. Differentiated Instruction, 7. Positive Learning Environment, and 8. Academically Challenging Learning Environment.

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Fact Sheet #18: Objective Setting for Student Growth

HOW TO USE STUDENT LEARNING OBJECTIVES IN MEASURING TEACHER EFFECTIVENESS

Introduction

One approach to linking student growth to teacher performance involves building the capacity for teachers and their supervisors to interpret and use student achievement data to set target objectives for student improvement. Setting objectives – not just any objective, but objectives set squarely on student performance – is a powerful way to enhance professional performance and, in turn, positively impact student achievement.

Characteristics of student learning objectives (SLOs)

- *Focuses on student learning by specifying learning outcomes*
- *Is specific, measureable, attainable, and time bound.*

- Focuses attention on instructional or program improvement
- Involves the following processes:
  - Examines trend data and current performance;
  - Develops outcomes/targets for improvement;
  - Establishes progress rates for meeting objectives; and
  - Measures academic progress on a regular basis.[1]
- Places the individual student at the center of assessment by monitoring individual student progress over time.[2]

Research

Researchers found that objective setting is particularly effective under the following conditions:

- The objectives are proximal rather than distal (objectives are oriented to the here-and-now rather than to some ultimate objective for the distant future, although it is important to be conscious of the connection between here-and-now tasks and the accomplishment of ultimate objectives).
- The objectives are specific (but not too specific) rather than global.
- The objectives are challenging (difficult but reachable rather than too easy or too hard).
- Interventions are used that impact directly on the experience of learners.
- There are high teacher expectations of students.
- Formative assessment is emphasized.[3]

Advantages of Objective Setting

Using student objective setting as a data source for teacher evaluation has many advantages, such as:

- Makes explicit the connection between teaching and student learning.
- Increases effectiveness of instruction through continuous modification of practices based on student data.
- Serves as an important data source for evaluating teachers who teach grades and subject areas that are not tested on SLOs.
- Helps teachers identify students in needs of additional or different forms of instruction.
- Raises student achievement.[4]

Concerns of Objective Setting

Despite the potential benefits of student objective setting, there are possible negative consequences for students and teachers, and these are summarized in the table below:[5]

Possible Negative Consequences for Students	Possible Negative Consequences for Teachers
Objective setting could pose a threat to underachievers. If they are given low target objectives, the students may	Individual objective setting may not be practical or cost effective for teachers

underperform to their teachers' low expectations.	teaching certain grades or subject areas.
Objectives imply a narrowing of the many and varied purposes of education. This could result in a narrowing of important student learning opportunities.	The outcomes of student learning are influenced by many external factors that cannot not controlled by the evaluatees.
	Teachers are at risk of being blamed and being treated as scapegoats when their students do not meet objectives.

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Fact Sheet #19 – Performance Rubrics in Evaluation

RATING TEACHERS WITH PERFORMANCE RUBRICS

What are performance rubrics?
It is important to consider the question of: *What is expected* of the teachers and *How will we know* if the teacher is fulfilling the performance standard. This fact sheet addresses the question of: *How well* is the teacher fulfilling the performance standard?

During formative and summative evaluation, rubrics are used to guide evaluators in assessing and documenting *how well* a standard is performed. A performance rubric is a summary rating scale that describes acceptable performance levels for each of the ten performance standards. The rating scale provides a description of levels on a continuum from *Exemplary* to *Ineffective*.

Performance appraisal rubrics are not behavioral objectives grounded in quantity (e.g., "four times out of five"). Rather, they are qualitative tools designed to:

- Delineate the type and quality of performance within each rating.
- Distinguish the qualitative differences across the progressive ratings.
- Base the final rating on the documented evidence.
- Restrict the scope of judgment that can be used in determining a given rating.

The *Teacher Keys Effectiveness System Handbook* provides examples of rubrics that are tailored to each of the ten performance standards. These examples use a four-level rubric depicting a continuum of teacher effectiveness on each standard. The levels are: *Exemplary*, *Proficient*, *Needs Development*, and *Ineffective*. The rubrics are applied in both summative, which comes at the end of the evaluation cycle, and in formative (ongoing, throughout-the-evaluation-cycle) settings.

Note: *The rating of "Proficient" is the expected level of performance.*

The ratings for each performance standard are based on multiple sources of information (i.e., observation and documentation) and are completed only after pertinent data from both sources are reviewed. The integration of data provides the evidence used to determine the performance ratings for both formative evaluation and summative evaluation of teachers.

Why Rate Teacher Performance Standards with Rubrics?
There are many advantages in using rubrics to rate teacher performance. Some of the advantages are:

- Rubrics make assessing teacher performance quick and efficient. They also help evaluators justify the ratings they assign to teachers.
- Rubrics are easy to use and self-explanatory. Rubrics make sense to both the evaluators and the evaluatees at a glance.
- Rubrics make the expectations for teacher performance very clear. They also make the evaluation process more fair and transparent.
- Rubrics ensure consistency (reliability) among evaluators while they assess *how well* a standard is performed.
- Rubrics enable evaluators to acknowledge effective performance (i.e., *Exemplary* and *Proficient*) and provide two levels of feedback for teachers not meeting expectations (i.e., *Needs Development* and *Ineffective*). Therefore, rubrics provide teachers with more informative feedback about their strengths and areas in need of improvement, thus helping teachers to focus on ways to enhance their teaching practices.
- At their best, rubrics can be used for the purpose of supporting professional development as well as for evaluation and accountability. For instance, a well-developed rubric on Standard 2-Instructional Planning, not only tells teachers that good planning must be evident in their performance, but also informs them of what an effective performance looks like and guides them in how to do it. In addition, the gradation of quality also describes what less than proficient performance looks like, such as "the

teacher plans without adequately using state and local school district curricula and standards, or without using effective strategies, resources, or data to meet the needs of all students." A rubric that reflects and reveals problems in teacher performance can identify areas of weakness and be informative for professional development decisions.

How can performance rubrics work best?

Despite improved fairness and objectivity, rating a teacher's performance with rubrics is not a fine science. There still will be subjectivity in judgment. To illustrate, evaluators may feel differences in the definitions of performance levels are blurred (i.e., the levels of *Proficient* and *Needs Development*. If Evaluator A views a given aspect of a teacher's performance and rates it *Proficient* and Evaluator B views the same performance and rates it *Needs Development*, then there is less trustworthiness in the ratings. Rating scales should not perpetuate highly subjective reviews of a teachers' performance.

It is recommended that rubrics should be (1) applied systematically, (2) used with improved trustworthiness of evaluators' ratings through inter-rater agreement (reliability), and (3) based on the best possible performance evidence available. In using performance rubrics, the evaluators should also understand that determining the quality of performance is more than examining a set of facts. It requires consideration of the context of the work, results, and so forth. Thus, evaluation, ultimately, *is* about judgment – albeit judgment based squarely on performance.

A few guidelines that will further enhance the value and defensibility of ratings based on performance appraisal rubrics includes the following:

1. When comparing the documented evidence with the performance rubric, start with the *Proficient* rating and move up or down the scale only when the evidence justifies it.
2. When all of the collected evidence doesn't fit within a single rating rubric (which typically will be the case), select the rating where the "**totality of the evidence and most consistent practice"** exists.
3. Provide teachers with the full set of performance appraisal rubrics so that they have full disclosure of the level of performance that is expected and a fair opportunity to meet those expectations.
4. Consistently train evaluators in the use of the performance appraisal rubrics, with special attention given to practicing the rubrics in simulated settings.

How will performance rubrics be used in the revised teacher evaluation system?

Evaluators make judgments about performance of the ten teacher standards based on all available evidence. After collecting information gathered through observation and documentation, the evaluator applies the four-level rating scale to evaluate a teacher's performance on all teacher expectations for the summative evaluation. Therefore, the summative evaluation represents where the "**totality of the evidence and most consistent practice**" exists, based on various data sources.

Summative ratings should apply for each of the ten performance standards. In determining the final summative rating, the electronic platform will:

- Apply numbers 0 (*Ineffective*) through 3 (*Exemplary*) to the Rating Scale
  Exemplary = 3
  Proficient = 2
  Needs Development = 1
  Ineffective = 0
- Calculate the overall TAPS point score through adding the contribution of each standard to the summative computation.
- Appropriately scale the final TAPS score to the final summative Teacher Effectiveness Measure score through using the scale determined by the Georgia Department of Education.

Fact Sheet #20 – Use Evaluation to Provide Feedback on Teacher Improvement

USING TEACHER EVALUATION TO IMPROVE TEACHER PERFORMANCE

Why teacher evaluation alone is not enough?
Teacher evaluation is not an end in itself, but a means to an end—teacher improvement. Teacher professional growth is one of the essential reasons that a teacher evaluation system is designed and implemented. David et al. suggest that:

> School-based administrative and professional leadership play essential roles in determining the meaning and value of teacher evaluation in schools, and how teacher evaluation can extend beyond its ritualistic traditions to improve teaching and learning.[1]

The leadership makes the difference between "perfunctory summative teacher evaluation and meaningful assessment of the teaching and learning process that has the potential to enhance the quality of teaching and student learning."[2]

How is teacher evaluation connected to teacher improvement?
If a teacher's performance does not meet the expectations established by the school, the teacher will be placed on a Professional Development Plan for improvement. This plan is designed to support a teacher in addressing areas of concern through targeted supervision and additional resources. It may be used by an evaluator at any point during the year for a teacher whose professional practice would benefit from additional support. An improvement plan can also be implemented based on a certain number *Needs Development* or *Ineffective* ratings on performance standards during a certain period of performance. This is a process that requires the evaluators to provide meaningful feedback on teacher performance. Feedback with the following characteristics is useful and will lead to more meaningful and successful professional development:[3]

- Feedback focused on teaching and learning rather than other areas.
- Feedback that is contextual rather than context free. (The context that should be considered includes the school's mission and improvement goals; the performance standards, curriculum and instructional goals; level of expertise; teaching styles and instructional goals; and the students' cultural background, prior learning, current needs.)
- Feedback that is generated through analysis of deep, rich evaluation data (i.e., the data collected from multiple observations and multiple documentation options) rather than efficiently gathered, simple data.
- Feedback that is generated based on long-term, continuous data gathering rather than "one-shot" evaluations.

Forms of professional development
Professional development takes many forms. Gordon summarized 12 professional development frameworks:[4]

Framework	*Description*
Training	A cycle of skill development, classroom application, assessment, reflection, peer support
Co-Teaching	Teachers plan lesson together, teach lesson together, collaborate in post-lesson analysis
Lesson Study	Group identifies gap between desired and actual practice, set goals, carries out series of study lessons
Clinical Supervision	Pre-conference, classroom observation, post-conference
Peer Coaching	Peers engage in coaching cycles to transfer training skills to classroom, learn about teaching, or foster reflective decision making

Study Groups	Small groups of teachers explore professional literature, provide collegial support, or work collaboratively to improve curriculum and instruction
Action Research	Individual or group identifies focus area, gathers data, designs action plan, implements plan, evaluates results
Reflective Writing	Includes journal writing, case writing, autobiography
Teacher Induction and Mentoring	Induction programs support beginning and new-to-the-district teachers, often include mentoring by experienced teachers
Intensive Assistance	Special assistance for teachers not meeting performance expectations
Self-Directed Professional Development	A teacher conducts a self-analysis of professional needs, then plans, implements, and assesses an individualized professional development program
Portfolio Development	Can be for projects, the school year, or career; includes artifacts and reflections on beliefs, experiences, self-assessment, professional growth, and so on

Schools can use a combination of various frameworks within their overall professional development program. The results of teacher evaluation can provide important information to assist in the selection of frameworks to use.[5] While working with teachers on performance improvement, the evaluators should link learning about instructional changes or innovations to teachers' past experiences.[6] The improvement plan should also include realistic timelines, expectations for improved performance, and evidence of changes in performance.[7] At the end of implementation, teacher evaluation can be used for the assessment and improvement of the professional development plan. Based on the evaluation of teaching, professional development frameworks can be added, modified, or deleted, and the relationship of multiple frameworks can be reshaped.[8]

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[5] Gordon, S. P. (2006).
[6] DiPaola, M. F., & Hoy, W. K. (2008). *Principals improving instruction: Supervision, evaluation, and professional development.* Boston: Pearson Education, Inc.
[7] DiPaola, M. F. & Hoy, W. K. (2008).
[8] Gordon, S. P. (2006).

Fact Sheet #21–Evaluation Conferences

HOW TO CONDUCT A SUCCESSFUL EVALUATION CONFERENCE

What an evaluation conference is and why it is important?

Throughout the teacher evaluation process, communication occurs between the evaluators and those being evaluated. However, the formal summative conference is the most significant and high-stakes communication event of the whole process. While the large majority of teacher and administrators in one study agree that "conferences between teachers and administrators are an important component of teacher evaluation," only 34 percent of teachers and 12 percent of principals agree that such conferences between are done well.[1] Essentially the evaluation conference confirms what has been communicated throughout the evaluation period. With regular feedback letting the teacher know where he or she has excelled and where there are concerns, there should be no surprises in the summary evaluation conference.[2] As early as 1960s, MacGregor pointed out that an evaluation conference serves multiple purposes for teachers:[3]

- Administrative: to document performance for use in personnel decision making.
- Informative: to inform the employee about his or her work performance.
- Motivational: to motivate employees to higher levels of performance.

In addition, a good evaluation conference can also serve problem-solving, strategy-developing, and goal-setting functions.[4]

What makes an evaluation conference effective?

Helm and Maurice suggested that the success of an evaluation conference is contingent on the careful preparation, not only by the principal but also by the teacher. They summarized steps that a principal and a teacher should take to prepare for an evaluation conference:[5]

Helm and Maurice also summarized what literature says about the characteristics of effective evaluation conferences[6]:

- Two-way communication: Principals who are good listeners can obtain more useful information about teacher's performance and development needs, and greater teacher commitment.
- Balanced review of past performance and plans to improve future performance: An evaluation conference is more than summarizing past or present performance. It also includes setting performance goals and developing professional growth plans.
- Recognition of teacher strengths and successes: Emphasizing what the teacher has done well can enhance his or her motivation and morale for better performance.
- Identification and analysis of problems affecting the teacher's performance: Encourage the teacher to identify and analyze the reasons for unmet performance expectations. The principal also identifies performance problems overlooked by the teacher, and pursues joint problem-solving by being willing to give the support the teacher needs.
- Teacher initiation of goals for the next evaluation cycle. Teacher-initiated goal-setting can create a sense of ownership and increase the commitment to accomplish the goals. The principal should also be prepared to offer goals when the teacher is unwilling or unable to suggest some.

Steps by the Principal	***Steps by the Teacher***
Set date, time, and place of evaluation conference after confirming with the teacher his or her availability at that time.	Collect, organize, and analyze any documentation generated during the evaluation period (sample assignment, tests, student work, pictures of display, etc.).
Ask the teacher to organize, review, and submit any performance documentation collected.	Identify major strengths and successes of the year.
Ask the teacher to be prepared to discuss successes, unmet challenges, factors interfering with his or her best performance, and what the principal or school system can do to help the teacher achieve his or her goals.	Identify any unmet expectations or goals and analyze possible reasons for failure to meet them. Pay careful attention to factors both within and outside the teacher's control.
Review any job description, previous evaluation, or documentation about the teacher's performance, along with any performance goals that were set for the evaluation period.	Identify areas for growth (improvement or new directions) and possible goals or objectives for the next year.
Complete a tentative evaluation and prepare notes summarizing the teacher's successes and concerns.	Identify how the principal or school system can help the teacher achieve greater effectiveness.
Plan a "script" for addressing concerns tactfully.	
Prepare questions to enable the teacher to provide meaningful analysis of his or her strengths and areas for improvement.	

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[2]DiPaola, M. F., & Hoy, W. K. (2008).*Principals improving instruction: Supervision, evaluation, and professional development.* Boston: Pearson Education, Inc.
[3]Cited in Helm, V. M., & Maurice, H. S. (2006).Conducting a successful evaluation conference.In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nded.) (pp. 235-252). Thousand Oaks, CA: Corwin.
[4]DiPaola, M. F. & Hoy, W. K. (2008).
[5]Adapted from Helm, V. M. & Maurice, H. S. (2006). pp. 240-241
[6]Helm, V. M. & Maurice, H. S. (2006). pp. 244-245

Fact Sheet #22: TKES & FOUNDATIONAL DOCUMENTS CROSSWALK

THE TEACHER KEYS EFFECTIVENESS SYSTEM FOUNDATIONAL DOCUMENTS CROSSWALK: CLASS KEYS^{SM}, SCHOOL KEYS^{SM}, STANDARDS-BASED CLASSROM RUBRIC, AND GEORGIA FRAMEWORK FOR TEACHING

The Teacher Keys Effectiveness System (TKES) Crosswalk lists standards in each of the five domains and identifies the connections among the foundational documents guiding the development of the Teacher Keys Effectiveness System. Teachers and administrators should consider the crosswalk as a reference tool when planning for the teacher evaluation system. The crosswalk demonstrates where the Teacher Keys Evaluation |System, CLASS Keys^{SM}, School Keys^{SM}, High Impact Practice Rubric for Standards-Based Classrooms (Implementation Resource) and the Georgia Framework for Teaching intersect. Professional learning, school improvement initiatives, and Professional Growth Plans of individual teachers can be guided by this crosswalk.

Teacher Keys Effectiveness System (TKES)		CLASS Keys^{SM}	School Keys^{SM}	High Impact Rubric for Standards-Based Classrooms	Georgia Framework for Teaching
Planning	**1. Professional Knowledge** The teacher demonstrates an understanding of the curriculum, subject matter, pedagogical knowledge, and the needs of students by providing relevant learning experiences.	**Curriculum & Planning** 1.1, 1.2, 1.3 **Professionalism** 1.3, 3.1, 3.2	**Professional Learning** 1.5, 2.4, 2.6, 3.2 **Curriculum** 1.2, 2.1 **School Culture** 2.2, 2.3	**Concepts** 1, 8	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.3, 3.4, 3.5, 4.7, 5.2, 6.1, 6.4, 6.5
	2. Instructional Planning The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.	**Curriculum & Planning** 2.1, 2.2, 2.3 **Standards-based Instruction** 1.1, 1.5 **Professionalism** 1.2, 3.1, 3.2	**Instruction** 1.1, 1.2, 2.5, 2.7 **Assessment** 1.2, 1.3, 1.4 **Professional Learning** 1.5, 2.4, 2.6, 3.2 **Planning & Organization** 4.1, 4.2	**Concepts** 1, 3, 4, 6, 10	1.1, 1.3, 1.5, 1.6, 3.1, 3.2, 3.3 4.3, 5.1, 5.2, 5.7, 6.1, 6.4, 6.5

Teacher Keys Effectiveness System (TKES)		CLASS Keys[SM]	School Keys[SM]	High Impact Rubric for Standards-Based Classrooms	Georgia Framework for Teaching
Instructional Delivery	**3. Instructional Strategies** The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.	**Standards-based Instruction** 1.1, 1.2, 1.3, 1.5, 2.2 **Professionalism** 3.1, 3.2	**Instruction** 2.1, 2.2, 2.3 **Planning & Organization** 2.2 **Professional Learning** 1.5, 2.4, 2.6, 3.2	**Concepts** 5, 6, 9	1.2, 2.2, 2.5, 3.4, 3.5, 4.2, 4.8, 5.2, 5.3, 5.4, 5.6, 6.1, 6.4, 6.5, 6.6, 6.7
	4. Differentiated Instruction The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.	**Standards-based Instruction** 1.3, 1.4, 2.1 **Professionalism** 1.3, 3.1, 3.2	**Instruction** 2.3, 2.5, 3.3 **School Culture** 2.2, 2.3 **Professional Learning** 1.5, 2.4, 2.6, 3.2	**Concepts** 4, 5	2.3, 2.5, 3.1,3.2, 3.4, 3.5, 4.7, 4.8, 5.3, 5.4, 5.5, 5.6, 6.1, 6.4, 6.5, 6.6, 6.7
Assessment of and for Learning	**5. Assessment Strategies** The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.	**Curriculum & Planning** 2.3 **Assessment of Learning** 1.1, 1.2, 1.3 **Professionalism** 3.1, 3.2 **Student Achievement** 1.1, 1.2	**Assessment** 1.2, 1.3, 1.4, 2.1, 2.2, 2.3 **Instruction** 2.4 **Professional Learning** 1.5, 2.4, 2.6, 3.2	**Concepts** 5, 6, 8, 10	1.6 4.1, 4.2, 4.3, 4.4, 4.6, 4.7, 4.8, 5.2, 5.4, 5.7, 6.1, 6.4, 6.5, 6.6, 6.7
	6. Assessment Uses The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.	**Curriculum & Planning** 2.3 **Assessment of Learning** 1.1, 1.2, 1.3, 2.1 **Standards-based Instruction** 2.3	**Assessment** 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1 **Instruction** 2.4, 2.6 **Professional Learning** 1.5, 2.4, 2.6, 3.2	**Concepts** 5, 6, 8, 9, 10	1.3, 1.5, 1.6 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.2, 5.4, 5.7, 6.1, 6.4, 6.5, 6.6, 6.7

Teacher Keys Effectiveness System (TKES)		CLASS Keys[SM]	School Keys[SM]	High Impact Rubric for Standards-Based Classrooms	Georgia Framework for Teaching
		Professionalism 3.1, 3.2 **Student Achievement** 1.1, 1.2			
Learning Environment	**7. Positive Learning Environment** The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	**Professionalism** 1.1, 1.2, 1.3, 1.4, 2.1, 4.1	**School Culture** 2.1, 2.2, 2.3, 2.4 **Instruction** 3.3 **Planning & Organization** 2.1, 2.2, 4.1 **Student, Family, Community** 1.1, 1.4	**Concept** 10	2.3, 2.4, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 4.4, 4.6, 6.1, 6.2, 6.4, 6.5, 6.6, 6.7
	8. Academically Challenging Environment The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.	**Professionalism** 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 4.1	**School Culture** 2.2, 2.3, 2.4 **Instruction** 3.3 **Student, Family Community** 1.1, 1.4 **Professional Learning** 1.5, 2.4, 2.6, 3.2 **Planning & Organization** 2.1, 2.2	**Concept** 10	1.3, 1.5, 2.3, 2.4, 2.6, 3.1, 3.3, 3.4, 4.4, 4.6, 6.1, 6.2, 6.4, 6.5, 6.7

Teacher Keys Effectiveness System (TKES)		CLASS Keys[SM]	School Keys[SM]	High Impact Rubric for Standards-Based Classrooms	Georgia Framework for Teaching
Professionalism and Communication	**9. Professionalism** The teacher exhibits a commitment to professional ethics and the school's mission and participates in professional growth opportunities to support student learning, and contributes to the profession.	**Professionalism** 1.3, 1.4, 2.1, 3.1, 3.2, 4.1	**School Culture** 2.2, 2.3, 2.4 **Instruction** 3.3 **Student, Family Community** 1.1, 1.4 **Professional Learning** 1.5, 2.4, 2.6, 3.2 **Planning & Organization** 2.1, 2.2	**Concept** 10	1.3, 1.5, 2.3, 2.4, 2.6, 3.1, 3.3, 3.4, 4.4, 4.6, 6.1, 6.2, 6.4, 6.5, 6.7
	10. Communication The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.	**Standards-based Instruction** 2.2, 2.3 **Assessment of Learning** 1.1, 1.2, 1.3, 2.1 **Professionalism** 1.1, 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 4.1 **Student Achievement** 1.1, 1.2	**Instruction** 1.3, 2.6, 3.3 **Assessment** 1.1, 1.4, 2.2, 2.1, 2.3, 3.1 **School Culture** 2.1, 2.2, 2.3, 2.4 **Planning & Organization** 2.1, 2.2, 4.1, 4.2 **Student, Family, Community** 1.1, 1.4 **Professional Learning** 1.5, 2.4, 2.6, 3.2	**Concepts** 2, 5, 6, 7, 8, 10	1.6, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 4.1, 4.3, 4.4, 4.6, 4.7, 6.1, 6.5, 6.7

Fact Sheet #23: The Georgia Growth Model

STUDENT GROWTH PERCENTILES

The Challenge

Historically, Georgia's assessment system has only enabled educators and other stakeholders to ask questions such as, "What percentage of students met the state standard?" or, "Did more students meet the state standard this year compared to last year?" As a result of this challenge, Georgia has selected the Student Growth Percentile (SGP) model as its growth model for instructional improvement, accountability, and educator effectiveness. Implementing a growth model will allow Georgia to move beyond questions about status to ask critical growth-related questions such as:

- Did this student grow more or less than academically-similar students?
- Are students growing as much in math as in reading?
- Did students grow as much this year as last year?
- What level of growth is necessary for students to reach or exceed proficiency?
- Did students grow sufficiently toward meeting state standards?

The SGP model will provide a wealth of rich information on student, classroom, school, district, and state performance on Criterion-Referenced Competency Tests (CRCT) and End of Course Tests (EOCT) and, eventually, on the common assessments developed by the Partnership for Assessment of Readiness for College and Careers (PARCC). In addition to providing information to enhance our understanding of student achievement, SGPs will work in conjunction with other factors as part of the state's new evaluation system. SGPs are an accurate and fair way to capture the progress students make throughout the course of an academic year. This model provides Georgia with a comprehensive indicator system that can be used at multiple levels (class, school, system, and state).

What is Growth?

There are three typical ways of describing student achievement: status, improvement, and growth. Status measures compare student achievement to a target [such as the Annual Measurable Objectives (AMO) used to calculate Adequate Yearly Progress, (AYP)]. Improvement measures compare student achievement across time using different groups of students (e.g., 3rd grade math achievement in 2009 vs. 2010). Growth measures compare student achievement across time using the *same* students.

As with student achievement, there are different methods of measuring growth: categorical, gain score, value added, and normative (the last two are not mutually exclusive). Categorical growth compares the change in student performance categories across time (e.g., a student moves from "Did Not Meet" to "Meets"). Gain score growth compares the change in scale scores across time (e.g., the mean scale score in grade 6 in 2010 minus the mean scale score in grade 5 in 2009). This type of growth measure typically requires a vertical or developmental scale (a continuous scale spanning multiple grades in the same content area), which Georgia's current assessment program does not include. Value-added models are designed to estimate a teacher's effect on student achievement through the use of prior achievement data and other student characteristics. Actual growth is compared to statistical estimates of expected growth and the difference between the two is considered to be value added. Normative models compare current achievement to prior achievement using the historical growth attained by the student population. SGPs are a normative model.

Understanding SGPs

SGP describes a student's growth relative to other students with similar prior achievement (students who have a similar score history). The SGP not only shows how an individual student is progressing from year to year, but it also shows how groups of students, schools, districts, and the

state are progressing. SGPs do not require a vertical scale in order to describe student growth.

SGPs are a normative quantification of growth. They describe a student's growth relative to his or her academic peers – other students with the similar prior achievement. Each student obtains a growth percentile, which describes his or her "rank" on current achievement relative to other students with similar score histories. A growth percentile can range from 1 to 99. Lower percentiles indicate lower academic growth and higher percentiles indicate higher academic growth. Students also receive a growth projection, which describes the amount of growth needed to reach or exceed proficiency in subsequent years.

There are multiple ways of summarizing SGPs for groups of students (such as that for a classroom or a school district). Most commonly, a group's SGP is the median growth percentile for each student in the group. The median is obtained by rank ordering the percentiles for all students in the group and selecting the middle percentile (50% of the group would have a higher percentile and 50% a lower percentile). Additionally, the percentage of students demonstrating at or above a specified level of growth (for example, 60th percentile growth) can be reported. Finally, the growth percentile range can be divided into intervals (e.g., 1 – 25, 26 – 50, 51 – 75, 76 – 99) and the percentage of students demonstrating growth in each interval can be reported. Growth can be compared across grade levels and across subject areas, meaning summary measures also can be aggregated across grade levels and content areas.

An Example

Anna's reading growth percentile is 54. The median reading growth percentile for Anna's school is 65. This means that Anna grew at a rate greater than 54% of academically-similar students in reading. The typical student in Anna's school demonstrated 65th percentile growth in reading, meaning the typical student grew at a rate greater than 65% of academically-similar peers (those students in her school who share a similar history of scores on the reading test). Anna grew at a lower rate in reading compared to the other students in her school on *average*.

Growth Over Time

The fact that SGPs are normative, meaning growth percentiles describe a student's growth relative to other students in the state, raises the question, "How do we compare results from year to year?" A baseline will be used as a reference point so that change in overall growth can be observed from year to year. Without using a baseline, the median SGP for the state would be 50 every year – half of students would be below 50 and half would be above 50. Establishing the baseline for comparison allows the state to observe change in overall educational effectiveness over time. The baseline will be an average of multiple years of data in order to allow for a more stable comparison.

Growth to Proficiency

A second question resulting from SGPs' normative nature is adequacy: "How do we know if a student's growth is enough to put that student on track to reach or exceed proficiency?" SGPs analyze historical student assessment data to model how students performed on earlier assessments, how they performed on later assessments, and what level of growth they demonstrated in between. This information is used to create growth projections for each student. The growth projection tells us, based on where students are now, how much they need to grow to reach or exceed proficiency in the future.

For example, 6th-grade student Anna's reading growth percentile is 54. She scored a 750 on the 6th-grade reading CRCT, which is in the "Does Not Meet" performance level. How much will Anna need to grow in reading next year in order to score at or above 800 ("Meets") on the 7th-grade CRCT? The SGP growth projection provides just that. Given Anna's current 6th-grade achievement, she will need to grow at the 65th percentile to score "Meets" or at the 85th percentile to score "Exceeds" on the 7th-grade CRCT next year. What if we were interested in how much Anna has to

grow for the next two years to score at or above 800 ("Meets") on the 8th-grade CRCT? The growth projection might tell us that Anna will need to grow at the 60th percentile for two years to score "Meets" or at the 75th percentile for two years to score "Exceeds" on the 8th-grade CRCT. The Georgia Growth Model will include multi-year projections, giving a long-term view of what is required for students to reach or exceed proficiency. *Note that these numbers are for this example only and do not represent actual data-based growth estimates.*

Fact Sheet #24: Evaluator Credentialing

EVALUATOR CREDENTIALING FOR IMPROVED TEACHER EVALUATION

What does evaluator credentialing mean?
Credentialing is the process of establishing the qualifications of licensed professionals, organizational members or organizations, and assessing their background and legitimacy. For the Teacher Keys Effectiveness System, credentialing is intended to verify evaluator proficiency. To ensure that evaluators meet proficiency in the implementation of an evaluation system, individuals receive systematic instruction and successfully demonstrate the ability to do the work required. Evaluator credentialing may require a formal assessment to show competency and may include oral and/or written performance tasks, evaluation reports, continuing education, or a host of other potential measurements. Evaluator credentialing is ultimately used to ensure that an evaluator has at least the minimum qualifications to perform the duties of administering the Teacher Keys Effectiveness System.

Training of Evaluators
In 2007, Brandt claimed that districts rarely require evaluators to be trained. Mathers agreed, "One of the greatest challenges facing the consistent application of teacher evaluation practices is the paucity of trained and knowledgeable evaluators. Lack of training leads to the misuse of the evaluation instruments, the misinterpretation of results, and, ultimately the lack of overall utility of the results for improving the performance of teachers." (Mathers, 2008)

Dr. James H. Stronge advocated for training in 2003 when he stated that " a clear understanding of the performance standards determines the actual quality of the evaluation process and influences how an administrator approaches data collection, documentation, data analysis, conferencing, goal setting, report writing, and remediation."

Evaluators must receive proper training because lack of training can threaten the reliability of the evaluation and the objectivity of the results. Without adequate training, evaluators may be unaware of the potential bias they are introducing during their observations. (Mujis, 2006)

Laura Allen of Fordham University states that most pre-service training for school administrators…does not adequately address all the complex issues involved in doing teacher observations that result in improved teacher practice. Principals need to understand what good teaching looks like and how to analyze it if they are going to help teachers improve instruction. (Allan, 2007)

Stronge lent strong support for evaluation training for administrators when he stated that it "ensures integrity in the process and garners teacher confidence in both the administrator and the procedures." (Stronge, 2003)

Many questions arise from evaluators and teachers as they come to a common understanding of effective practice.
Being a proficient evaluator requires knowledge, skills, collaboration, and deliberate practice. Training and assessment of evaluators verify the minimum proficiency needed to conduct quality evaluations. Ongoing professional learning and collaborative discussions ensure that evaluators are continuing to provide reliable and valid evaluations. This is of primary importance in education as it is an ever-evolving field. It could be said that ensuring the proficiency of evaluators is vital to an increase in teacher effectiveness and student achievement.

What does the research say about credentialing evaluators?
In The Teacher Evaluator Training & Certification: Lessons Learned from the MET Project, McClellan states, "As the evaluation of teachers is used for increasingly high stakes personnel decisions, it becomes essential that the

judgments made by evaluators are accurate and defensible, both professionally and legally. With the recognition of the vital role that teachers play in promoting student learning, it has become essential for the evaluators to demonstrate that they can accurately assess (and diagnose for the purpose of supporting improvement) the quality of classroom instruction that they observe." (McClellan, 2012)

Odden writes that "the literature on performance evaluations in both education and the private sector has shown that many systems are not understood by the individual being evaluated, do not have reliable scores across multiple evaluators, and most important, do not meet criterion-validity standards – but often are still used for consequential decisions." (Odden, 2004)

Just as evaluation standards provide guidance for making decisions when conducting evaluations, evaluator competencies that specify the knowledge, skills and dispositions central to effectively accomplishing those standards have the potential to further increase the effectiveness of evaluation efforts. (Stevahn, 2005) Evaluator credentialing, therefore, is pivotal as it lays the foundation for reliability and validity of the teacher evaluation system.

How is evaluator credentialing determined?

Evaluator credentialing is a multi-step process. Competencies that establish the knowledge, skills, and abilities for effective evaluation have to be identified before training can begin and proficiency can be defined. In other words, what do we want our evaluators to know, understand, and be able to do with regard to teacher evaluations?

Training develops an in-depth understanding of the evaluation system and provides practice implementing it. Proficient evaluators develop a systematic approach to teacher evaluation using classroom observations and documentation review, provide specific feedback to teachers, and interpret assessment and survey data to inform/assess teacher effectiveness and student performance.

How will Georgia determine evaluator credentialing?

The Georgia Department of Education Division of Teacher and Leader Effectiveness recommends participation in Teacher Keys Effectiveness System Training and successful completion of the Evaluator Credentialing Assessment. Ongoing professional learning is necessary to maintain and deepen level of proficiency.

Evaluators who score below desired proficiency ratings on the Evaluator Credentialing Assessment will need additional opportunities to deepen their understanding of the evaluation system and hone their evaluator skills before implementing the evaluation process.

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