

Classroom Management Tools for Effective Teaching

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Simplifying Computer Management

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Aligning research and best practices regarding teaching with the infusion of technology resources is challenging, but significantly more manageable as the body of knowledge in this area increases. Based upon fifty years of research, the Seven Principles of Effective Teaching (originally Seven Principles for Good Practice) was developed by Arthur Chickering and Zelda Gamson in 1986. This summary of decades of educational research findings defines activities most likely to improve learning outcomes.

These principles and the body of research supporting them have been used in numerous research studies over the past twenty years as a guideline for aligning effective pedagogy, both technology and non-technology based, with desired student learning outcomes. This paper uses these principles as the foundation of analysis regarding the Faronics Insight components supporting effective teaching and enhanced learning. According to Chickering and Gamson, the Seven Principles of Effective Teaching embodies the following characteristics:

- Encourages Student-Faculty Contact
- Encourages Cooperation Among Students
- Encourages Active Learning
- Gives Prompt Feedback
- Emphasizes Time on Task
- Communicates High Expectations
- Respects Diverse Talents & Ways of Knowing

The infusion of teaching and learning technologies into 21st century classrooms is only the first step in a multistep process to transform traditional teaching methodologies into instructional pedagogy that more closely aligns with the way the digital natives in our classrooms want and expect to learn. Subsequent steps include securing classroom management tools and strategies that enable teachers to effectively integrate instructional technologies into daily practice and providing professional development for teachers on instructional technologies, 21st century classroom management tools/strategies, along with new teaching paradigms. This white paper outlines the role of Faronics Insight in supporting both effective teaching and enhanced learning through the implementation of specific features within this classroom management system.

Effective Teaching

Effective Teaching incorporates well-managed learning environments with real-time assessment that enables differentiated instruction.

Managed Learning Environments

For many years the typical classroom has been filled with resources to stimulate thinking, demonstrate concepts, encourage creativity, and support investigation and discovery. These same resources can also serve as a distraction to the student who may have difficulty focusing or is just looking for something to "get into." The effective and experienced educator has developed a wide array of techniques and strategies to manage these teaching resources within the classroom to their best advantage. One example within the traditional classroom is the creation of learning centers. Rules and schedules guide how and when students interact with the resources and activities within centers. Expectations are defined and outcomes clearly articulated and resources are available and organized in this managed learning environment.

Enter the 21st century and the invasion of instructional technology tools and resources – everything from computers and software, to digital cameras and a slew of other peripheral devices, to the vast cyber world found on the Internet. Not only do these resources bring tremendous potential into the classroom, but they also bring a potential management challenge! Teachers across the nation are struggling with these new management issues. Many of the traditional management strategies of even the most veteran educators are either inappropriate or ineffective in today's classroom. New classroom management tools are required along with 21st century instructional resources to harness their potential in a safe and productive environment.

The Faronics Insight feature-set closely aligns with the following Seven Principles of Effective Teaching in the area of a well-managed learning environment:

- Encourages Student-Faculty Contact
- Encourages Cooperation Among Students
- Encourages Active Learning
- Gives Prompt Feedback
- Emphasizes Time on Task

Faronics provides precisely the right collection of 21st century learning management tools to support today's teacher with organizing and structuring the wealth of digital resources within the learning environment. These tools enable the teacher to keep students on task, promote student-to-teacher conversations, and encourage cooperation and collaboration with their peers. The easy to use and configure Faronics Insight console, along with the web control and limiting features, provide the teacher with a quick snapshot of what each student is doing within their pre-established learning arena. The screen-sharing controls allow the teacher to share his/ her screen or an individual student screen with the rest of the class for discussion, critique, brainstorming, and problem solving. Features that address security, power monitoring, and wireless support all help to ensure that the technology rich classroom will function to its maximum potential with minimal technical problems. Teachers grow in their confidence that the resources are used appropriately by students and function properly on a daily basis.

Real-Time Assessment

Over the past five years, the No Child Left Behind (NCLB) legislation has placed huge emphasis on assessment results. Unfortunately, the focus of these assessments has been on annual standardized, statewide tests. In most instances these assessments report progress or lack of progress at a time when little remediation can be prescribed and/or implemented. Additional strategies are being employed by schools to assess students more frequently, on smaller collections of content objectives, sometimes on a quarterly or even monthly basis. Ideally, teachers need to know immediately following instruction and learning activities, which students have mastered and embraced concepts addressed and which seek additional time and/or support. Enabling a teacher to conduct real-time assessment of all students throughout the school day is now a reality.

The technology-enriched 21st century classroom is likely to have the ability to provide on-demand real-time assessment using some type of wireless response device combined with easy to configure and implement real-time assessment software applications. These applications generally allow teachers to select questions from existing assessment item banks or create their own. Assessments are immediately delivered to students, results are immediately analyzed, and then displayed for the teacher and/or class to review. These types of daily, interactive, and immediate assessments provide educators with the information necessary for real-time teaching and remediation.

The Faronics Insight feature set closely aligns with the following Seven Principles of Effective Teaching in the area of real-time assessment:

- Encourages Student-Faculty Contact
- Gives Prompt Feedback
- Encourages Active Learning
- Respects Diverse Talents & Ways of Knowing

Imagine this . . . you are a middle school science teacher and you have just completed an overview of meiosis and mitosis – the stages of each process and how they are similar and different. It is critical that the students understand this foundation before you proceed any further with these topics. How can you assess these critical concepts? You could announce that you will give the class a quiz the next day. You could give a homework assignment to draw a diagram of each process and label it. Both of these alternatives are valid and have been used many times in classrooms across the nation. The downside of both strategies is that you do not know until tomorrow who "gets it" and who does not. Until tomorrow you do not know how best to use your next classroom time – do you need to plan a review or are you ready to move forward with the concept? Faronics Insight student voting and testing components allow the teacher to conduct real time assessments and get immediate feedback. No more waiting until tomorrow to see if your students have mastered the material at hand and are ready to move forward. Likewise, the student question and chat features allow a student to raise a question as information is being presented, so the teacher can respond in a timely fashion and compare questions

across the entire class population. This real-time assessment not only provides the teacher with immediate feedback, but also encourages active and participatory learning among the students.

Differentiated Instruction

Teachers understand that all children are unique and every child brings his/her own set of strengths and needs to the classroom each day. Developing instructional activities and assessments that honor and engage these unique learning styles and preferences is a challenge from the pre-school to the secondary educator. Differentiated instruction describes the methodologies used by educators to adapt instruction to successfully meet the needs of the diverse collection of learners within their classroom. Much has been researched and written on differentiated instruction recently that integrates technology tools and resources to assist teachers with managing the processes of differentiated instruction. Technology tools are used to assess what students know, provide access to resources for building new concepts on existing experiences, and support on-going communication between teacher, student, and parent.

Technology enhances classroom management strategies by easily assessing and addressing multiple learning styles, creating guided pathways to learning, and providing channels for individualized access to content and communication. On-going assessments, targeted learning experiences, and regular communication are core components of differentiated instruction. To understand what a child knows at a given point in time to inform daily instruction, the teacher requires technology-based tools that can assess and analyze student skills and competencies on-demand. Likewise, teachers require the ability to identify and then channel targeted resources to individual students to support multiple levels of learning and presents challenges that are appropriate for each student. Throughout the learning process communication strategies that are not disruptive to the classroom such as "messaging and chatting" provide teachers with the ability to reinforce and support students and encourage students to access their teachers as mentor and guide.

The Faronics Insight feature set closely aligns with the following Seven Principles of Effective Teaching in the area of differentiated instruction:

- Gives Prompt Feedback
- Encourages Student-Faculty Contact
- Communicates High Expectations
- Respects Diverse Talents & Ways of Knowing

Real-time assessment and differentiated instruction are both supported by many of the same Faronics Insight features. The ability to query the class using the student voting and testing tools allows the teacher to group or partner students with like interests, complementary learning styles, and instructional needs. The communication channels enable the teacher and student to discuss, debate, and engage in quality interactions that would not necessarily occur in larger classroom discussions. The remote control and internet guidance components further allow the teacher to customize the online learning environment by observing, guiding, and monitoring closely individual student selections while accessing the internet. Combined, these features enable the teacher to acknowledge and respect each student as an individual with unique interests, talents, and learning strategies.

Summary

The effective 21st century teacher - integrating 21st century teaching and learning resources into daily practice - requires 21st century management tools and strategies to ensure effective teaching and enhanced learning. Faronics Insight is a tool with a wide variety of features that helps the effective teacher to function as an equally effective teacher in the technology-rich classroom. It is unrealistic to expect that teachers can "just integrate technology resources" into the curriculum in meaningful ways that enrich rather than distract, encourage engagement and interaction, and maintain time on task, without the types of classroom management tools and strategies offered by Faronics Insight.

Likewise, just having the Faronics Insight components does not guarantee Effective Teaching. The professional development required for educators to use the Faronics Insight components well to implement new teaching paradigms and strategies is a critical success factor in achieving the outcomes desired of 21st century learners.

The following matrix aligns each of the key Faronics Insight features with the Effective Teaching components described in this white paper.

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Faronics Insight Key Features	Classroom Management	Real-time Assessment	Differentiated Instruction
Quick, Easy Access			
Button Bar	Х		
Shortcut Menu	Х		
Monitor Students			
Thumbnail View			
Details View			
Keystroke Monitoring	Х		
Screen Snapshot		X	
Internet History		X	
Running Programs	Х	X	
Remove Distractions			
Blank Student Screens	Х		
Web Limiting	Х		
Application Limiting	X		
Print Limiting	Х		
USB Drive Limiting	Х		
Mute Sound	Х		
Teach			
Show Teacher Screen	X		
Show Student Screen			
Remote Control	X		Х
Co-browse			
Choose Random Student			
Communicate			
Send a Message			Х
Chat			X
Answer Student Question			X
Assess Student Progress			
Testing		X	
Voting		X	
Save Time			
Send/Collect Files	X		
Power On, Logoff, Restart, Power Off	X		
Multi-remote Control	X		
1:1 Support			
Wireless	X		
Thin Client	X		
Class Lists	X		

Faronics Insight Key Features	Classroom Management	Real-time Assessment	Differentiated Instruction
Battery Monitoring			
Security			
Anti-tampering Controls			
Active Directory Secure Mode	X		
Secure Mode	X		
Security Monitor	X		