
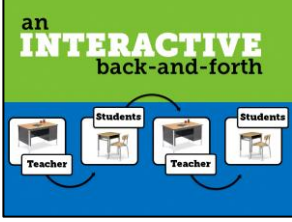






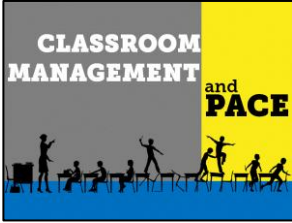

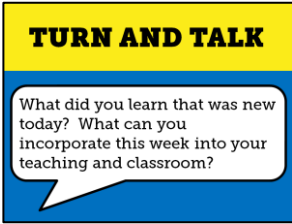
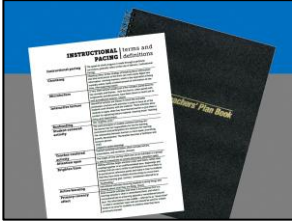
Improving Pacing: The Rhythm of the Classroom

Objective: The following leader notes and corresponding PowerPoint are provided by the Curriculum and Instruction Department to school leaders as a support in training faculty members on timely and important subjects. Please feel free to use as is, or revise to best fit the needs of your faculty/staff.

<p>1</p> 	<p>Today we are going to talk about how to keep students engaged in learning through pacing. Have you ever been in a meeting or class that seemed to drag on forever? Or, one that seemed to pass in a flash?</p>
<p>2</p> 	<p>What is pacing? Simply put, it is the speed at which we move through a lesson -- or the rate of delivery for different parts of the lesson.</p> <p>Good pacing gives students the <i>illusion</i> of speed. Pacing is the skill of creating a perception that a class is moving at “just the right speed” for students. Generally, this will mean that the lesson appears to unfold more quickly.</p> <p>Students see any change as an indicator or marker which helps them gauge the speed of a lesson’s progress. A good pace helps students feel like they are moving along.</p>
<p>3</p> 	<p>One way to create the illusion of speed is to use a variety of activities to accomplish a single lesson objective and by moving from one to another throughout the course of a lesson you are “changing the pace.”</p> <p>Changing the type of work or activity, the method of presentation, or the way students are grouped creates interest and increase the pace. Changing topics too often, however, can create confusion in a classroom and be distracting to students; so, stay with topic but change instructional strategies often.</p> <p>For example, a teacher focusing on a single topic, such as Islamic Art, might organize activities like this: first, students define terms, then they find examples from a book or online, next they might identify key characteristics on a specific work of art, and conclude by responding to description taken from a novel.</p>
<p>4</p> 	<p>Why should we think about using techniques such as change to facilitate good pacing?</p> <ul style="list-style-type: none"> • Effective pacing helps a teacher hold the students’ attention. • Students who are paying attention learn. • Students who are not paying attention cannot be learning. <p>There is a lot of conflicting advice about the length of a student’s attention span. Some examples from “experts” include the following.</p> <ul style="list-style-type: none"> • The “Age plus Two Rule” states that a student’s optimal attention span is equal to his or her age plus 2 minutes (i.e., a 13 yr old can pay attention for about 15 minutes at a time.) • Another rule insists that it is half the students’ age. • Other advice suggests three activities each hour. • And yet another is that teachers should never do anything for more than ten minutes. <p>Finally, some experts would assert that there is <i>no such thing as an attention span at all</i>. If we feel something is interesting, it is easy to pay attention; when something is not interesting, it is difficult to pay attention for long. Thus, the same student may have a different attention span depending on the situation. We know students can play video games for hours, but only focus on some in class lectures or activities for a few minutes. Why is that?</p>

<p>5</p>  <p>TURN AND TALK</p> <p>How you can tell when students' attention spans are dropping? What do you do?</p>	<p>TURN AND TALK - Turn to your neighbor and talk for 60 seconds about the following: How you can tell when students' attention spans are dropping? What do you do? Do you change midstream or do you continue on so you can get through your lesson? Share strategies that work for you.</p>
<p>6</p>  <p>a CHANGE is as good as a REST</p>	<p>There is an old saying, popular among hard-working farmers that "a change is as good as a rest." The same is true for our students. Students are rejuvenated by the novelty of a change.</p> <p>How many changes should there be? That depends on the demographics of the class, the topic they are studying in the lesson, and the skill of the teacher. Effective teachers plan periodic changes of activity or format in their lessons in order to refresh students' interest without disrupting the flow of content. For example, an "interactive lecture" will both hold students' attention and provide a "rest" through change at the same time.</p>
<p>7</p>  <p>an INTERACTIVE back-and-forth</p>	<p>Interactive lectures are direct instruction in which the teacher inserts into the lecture student-centered activities. These activities provide students with opportunities to work directly with the material the teacher has presented. They allow students to apply what they have already learned or give them a context for upcoming lecture material by scaffolding or building background knowledge.</p> <p>What are some things you can do to create student centered activities within an interactive lecture? Discuss for 30 seconds with a partner. (Examples might include: question-and-answer periods, discussions with a partner, small group or collaborative work, creation of brainstormed lists, estimating or calculating with a partner or in groups.)</p> <p>It is critical that students become engaged in the material or activity during the breaks as well as engaged with each other as co-learners. So, if you are lecturing, break it up often with student centered activities.</p>
<p>8</p>  <p>CHUNKING</p>	<p>The challenge for teachers is to break up the information they want to present and/or the steps to master the skills they are teaching; sometimes referred to as "chunking" the lesson.</p> <p>If the teacher goes through the process of breaking up the material into "bite-sized" pieces of learning, students are better able to grasp and master the content or steps in skill development.</p> <p>Some chunks of information can be taught, developed, or practiced in the student-centered portions of the lesson. Others that are most effectively or efficiently taught using direct instruction can become short lectures. These are sometimes called "microlectures."</p>
<p>9</p>  <p>MICROlecture</p>	<p>A microlecture refers to the practice of very focused, clear, and effective chunks of direct instruction that occur in mere minutes (or even less) rather than through lengthy lectures. These "tiny bursts" of information presented in a lecture format are followed by student-focused activities. The pace of the class, in this way, feels brisk rather than slow as students get, perhaps, a one minute lecture, followed by an activity that deepens and applies new learning of content or skills.</p> <p>For example, in a lesson on the different layers of earth, a science teacher might give a microlecture on the composition and characteristics of the crust, followed by students working in small groups to find and outline the same elements for different layers such as the mantle, outer core, etc. This could be followed by an activity in which students use a graphic image to check their answers or develop further questions before a final microlecture on a related topic.</p> <p>You may want to take 60-90 seconds to model a microlecture on an interesting topic or show microlecture video example (found on MicroPD website).</p>

<p>10</p> <p>TURN AND TALK</p> <p>What was one topic you have taught in class recently that could have been “chunked” and delivered as a couple of microlectures in an interactive lecture format.</p>	<p>TURN AND TALK –Turn to your neighbor and take 60 seconds to discuss the following: What was one topic you have taught in class recently that could have been “chunked” and delivered as a couple of microlectures in an interactive lecture format.</p>
<p>11</p> <p>BRAIN THEORY and student learning</p> 	<p>Teachers are becoming increasingly aware of, and positively influenced by information about how students work and learn. You may have heard about the Primacy-Recency Effect which suggests that what we learn first in a lesson is what we remember best, and what we learn last in a lesson is what we remember second best.</p> <p>The information in the middle – referred to as “down-time” – is what we remember least and should be used for a brain break. During these breaks, students practice and apply learning through review, discussion, or application of skills as they deepen understanding of content through interaction with their peers.</p> <p>The Primacy-Recency Effect is powerful when joined with the ideas of pacing and interactive lecture. Lessons with multiple parts allow students to experience multiple beginnings, middles, and endings — keeping learning levels high throughout an instructional period. Think about how many beginnings you can have in a lesson when you microlecture, for example.</p>
<p>12</p> <p>ensure that both BEGINNINGS and ENDINGS are clear to all students</p> 	<p>One best-practice method for teachers who become skilled at improving their pacing by breaking up their classroom instruction, is to make the breaks between the various activities crystal clear to students. Ensuring that activities begin and end crisply and clearly, rather than melding together, can have a positive effect on pacing. Because beginnings and endings are perceived by students as reference points in a lesson, or markers, making sure that they are clear to students helps them sense that the lesson is “moving along” and gives them a positive sense of pace.</p> <p>This technique has been referred to as “bookending” or “brightening lines” because learning segments are clearly marked by the teacher. You can brighten lines by reminding students of what just has been learned, or what is about to be learned, and, giving them very clear timelines (i.e., for 3 minutes, or during the next 10 minutes, etc.) This helps them focus on the fact that they are learning, and doing so at a good pace. The more specific you are, the clearer your “bookends” or “bright lines” will be; you may even want to tell students they will have 2 ½ minutes rather than 3, or 7 minutes rather than 10.</p> <p>For example, a teacher might say something like this to her class: “Now that everyone has finished their worksheet, please pass it in and begin reading from the textbook on page 67. I will give you 9 minutes.”</p> <p>Or, we might say this: “Everyone has finished the worksheet. The main idea is addressed in question #8 which refers to the author’s background and perspective. Jenny, would you sum that up for us? Okay, now that we understand the poet’s family life, let’s take 9 minutes to read two of his poems which begin on page 67. We will then connect his family life to the poetry after a 9-minute reading period.”</p> <p>Which is better? Can you see how the level of specificity can help you “brighten lines” more clearly?</p>

<p>13</p> 	<p>Sometimes it is difficult to maintain pacing when moving from one activity to another often during the course of a lesson. One relatively simple way to maintain an effective pace is by preventing interruptions in the lesson due to misplaced materials or instructional resources.</p> <p>Mastering the techniques of effective pacing and interactive lecture requires more instructional planning and skill on the part of the teacher. Because your lessons will include more varied activities than you may be used to, advance planning and preparation of the classroom setup and materials is crucial.</p> <p>Making lesson material readily accessible to yourself and to students decreases interruptions during work time, and improves the pace. Moving from activity to activity without preparation feels chaotic to students and will be frustrating for you.</p>
<p>14</p> 	<p>Just as important as organization of instructional materials, is the organization and management of the students. When activities or instructional formats change in a classroom, some students will feel stress. Transitions are very difficult in classrooms where teachers struggle with management because the lesson doesn't flow smoothly from one activity to the next and feels choppy as the teacher must take time to organize and control students before starting again.</p> <p>Some studies suggest a brisk pace of instruction may actually decrease disruptive classroom behavior. You may need to take time to cultivate a classroom culture with a good pace through effective planning and by helping students learn and practice transition procedures.</p>
<p>15</p> 	<p>In summary, good pacing means students recognize they are learning and feel as if the material is moving fairly quickly.</p> <p>Remember to:</p> <ul style="list-style-type: none"> • Plan learning with a variety of activities, of different formats, in mind. • Don't give long lectures; give interactive lectures. • Chunk learning by using microlectures combined with student-focused activities. • Make beginnings and endings of learning activities very clear to students. Remind students what they have learned and/or are about to learn. • Have all materials ready so the flow of class – the pace—is not interrupted.
<p>16</p> 	<p>Think about some of the big ideas we have talked about today. You probably use some of them already.</p> <p>TURN AND TALK –Turn to your neighbor and take 60 seconds to discuss the following: What did you learn that was new today? What can you incorporate this week into your teaching and classroom?</p> <p>Have teachers share.</p>
<p>17</p> 	<p>Hand out the list which defines some of the terms used in this presentation. Tell teachers they can use them as a springboard for ideas about improving the pace in their own classrooms.</p>