

Educators who use effective classroom management techniques, employ good teaching practices and interactive learning activities have the power to turn on the learning lights.

Time-on-task, a significant unit in AFT's ER&D Foundations of Effective Teaching, has been one of the most widely discussed concepts among researchers, administrators, and educators since the 1970's.

This discussion actually began with John Carroll's 1963 paper, "A Model of School Learning", which directly linked learning to time. He proposed that true learning depends on the amount of time a student spends actively engaged in the learning process compared to the amount of time the student needs in order to learn. For example, if Bill needs 60 minutes to recognize and know ten new sight words or be able to type 25 words per minute with no errors, and he spends 30 minutes on the learning, then Bill will not master the material. Bill will learn half the words or type at half the speed and/or make errors.

Later research studies amplified this concept. These studies explored how time can be more efficiently used in classrooms and the instructional practices that lead to active student learning. The California Beginning Teacher Evaluation Study (BTES) of grades 2 through 5 in a large number of elementary schools identified teaching activities and classroom conditions that advanced student learning. BTES findings highlighted three important time concepts: **allocated time**, **engaged time** and **academic learning time**.

Allocated time is the total amount of time available for learning; e.g. the length of the school day or a class period. It is the "opportunity to learn". According to the BTES and many subsequent studies, teachers who allocate more time to a specific content area have students who achieve at higher levels than teachers who allocate less time to the same content. The Florida Department of Education (FLDOE) embraced this research concept when it developed the policy that mandated an uninterrupted 90 minute reading block for all public elementary schools. This standardized reading time allocation guarantees that all elementary students have an equal opportunity to learn to read. The BTES study also noted factors that limit learning or cause students to lose interest during the allocated timeframe, such as:

- Unscheduled interruptions, public announcements, fire drills, visitors and other *school management practices*
- Uneven transitions between activities and inefficient *classroom management procedures* that disrupt the learning flow, such as disorderly material distribution or disorganized assignment collection
- Over-reliance on seatwork, uninteresting and overly demanding lessons and other non-engaging *instructional practices*

The BTES findings on **engaged time or time on task** demonstrate that the more engaged time students have, the higher they achieve. Highly interactive instructional styles led to greater amounts of student engaged time, and, consequently, increased student learning. The Time on Task unit in the ER&D Foundation course offers this data from the BTES study of reading and mathematic instruction:

- Students were actively engaged in learning 84 percent of the time during teacher led activities but only 70 percent of the time during seatwork
- Seatwork and students working alone was the dominant activity pattern in classrooms studied – 66% in reading and 75% in math
- Student engagement dropped considerably lower when students spent 90% of their time doing seatwork

This research found its way into many, many teacher evaluation systems to promote teacher-student interaction and support student learning. Highly effective teachers use interactive presentations with modeling, questions and answers, guided practice, and constructive feedback before students work independently. It is also interesting to note that high student engagement during teacher-led instruction and group work yielded high engagement during independent seatwork.

Academic learning time has to do with quality; it is the amount of time students spend actively working on tasks of an appropriate difficulty. Success breeds success. When a teacher targets the instruction of a new concept or skill so students can succeed at least 75% of the time, students are more engaged and achieve at higher levels. Computer game makers use this same research concept. They create captivating games designed with advancing levels of difficulty so that even novice players, intrigued by the challenge, and can “find the ring” or “enter the magic door” frequently enough to maintain their interest. For the teacher, striking the balance between challenge and success in the classroom is more demanding and complex than any game, particularly with a heterogeneous group of students. To deliver lessons designed to maximize academic learning time, teachers must:

- accurately diagnose each student’s knowledge and skill level
- prescribe learning tasks appropriate to a student’s levels
- structure engaging lessons around the learning tasks and give clear, concise task directions
- have substantive teacher-student interaction during the lesson, such as: modeling, guiding students as they practice, asking probing questions, giving corrective feedback

How does the time-on task research play out in the day-to-day classroom experience? Along with school management practices that ensure quality classroom time, **time on task** depends on good classroom management processes and highly interactive teaching styles.

Four significant classroom management processes promote time-on-task:

- Room arrangement – Well-organized room arrangements provide easy student movement and good teacher-student eye contact. Trouble-free traffic patterns reduce distractions and disruptions. In addition, educators whose rooms are arranged so they have a clear view of all their students can easily monitor student engagement and attend to student activities.
- Rules and procedures – Effective rules and procedures reduce the time spent on disruptions and disciplinary situations
- Transitions – Efficient practiced transitions help students move in and out of the room smoothly and get to work quickly at the beginning of class or on the next learning activity.
- Preparation and pacing – Doing the hard work of pre-planning and preparing ample activities and materials allows educators to focus on the lesson momentum. Good pacing reduces dead time and keeps students involved and on task.

What are practical ways of using this information? In *The Art and Science of Teaching*, Robert Marzano identifies and explains four steps that work well in a variety of curriculum areas and classroom settings to promote time-on-task. They are:

Step 1: Explanation. Students require explanation for most curricular aims or learning goals. For example, if a teacher wants students to be able to perform oral presentations and assess their own skills, then the students need to be able use an evaluation rubric containing four criteria. The teacher would explain—perhaps in lecture format—the meaning of the rubric’s four factors and how to apply those factors to assess a presentation.

Step 2: Modeling. It's often helpful for students to see "what it would look like" to actually have mastered the learning goal. It is very helpful for students to see someone (not necessarily the teacher) model the successful use of the skill or knowledge.

Step 3: Guided practice. Demanding learning goals require assistance and practice. Teachers need to include a number of instructional activities for students to practice with improvement-oriented guidance and feedback.

Step 4: Independent practice. At this point students are to display genuine mastery of the learning goal. Engaged time-on-task is especially relevant here. Independent practice makes sure that students can apply the knowledge or skill in a variety of circumstances and is deeply understood.

Innovative educators use many interactive strategies during the first three steps and particularly during guided practice. Here is an annotated list of well-recognized, interactive teaching strategies:

- Limit lecture time to 15-20 minutes and give students two or three opportunities within the lecture period to answer questions or Think/Pair/Share (see below)

Florida Education Association. *Time-on-Task: A Strategy that Accelerates Learning.*

- Use small group work (cooperative learning groups) to learn new information and model, practice or review a learning goal
- Employ a variety of interactive methods during a lesson; including:
 - Think/Pair/Share - Think about what you heard/learned, turn to a neighbor and share your thoughts in a very short time period
 - Buzz Session – give small groups a specific problem to solve in a short time period, monitor their work together and ask them to report their findings
 - Case Study – provide small groups with an open-ended situation that requires analysis, discussion and conclusions/recommendation(s) then groups deliver oral or written report
 - Incident Process – give small groups a real life incident or problem and ask the group to discuss it and develop a solution
 - Question & Answer Period –
 - following a brief topic introduction and before a lecture, ask students to write their questions on index cards and collect cards before the lecture, then during the lecture read and answer the student-generated questions
 - have a random method of selecting the student to answer questions, e.g. names written on popsicle sticks or index cards drawn out of a bin, computer selected students, previous responder selects next student
 - ask open-ended, critical thinking questions that require thought, analysis, evaluation with justification or synthesis
 - ask rapid-fire close-ended (single answer) questions
- Short writing exercises – have students write a short response that identifies the part(s) of the lesson they did not understand or gives the key points of the lesson
- Note Review – ask students to review their notes and star the parts of the lesson they understand completely and circle the points that don't make sense; circle the room to answer questions and identify consistent misconceptions
- Demonstration – provide teacher-led or student-developed visual presentations of important concepts
- Other interactive possibilities:
 - Peer instruction

- Practice sessions
- Discussion
- Role play
- Brainstorming
- Games
- Field Trips
- Competition
- Assigned reading

In conclusion, time is important for learning. Across decades of research, time-on-task is positively associated with academic achievement. Students who are active participants in their knowledge acquisition and skill development own their learning and will perform at high levels of accomplishment. Educators who are familiar with the time-on-task research, know their students well, use effective classroom management techniques, and employ good teaching practices and interactive learning activities have the power grid to turn the learning lights on for many, many students.

References:

AFT Educational Research and Dissemination, *Foundations in Effective Teaching I*

ARMA International, "Interactive Teaching",
www.arma.org/learningcenter/facilitator/uploads/interactiveteaching.ppt

ASCD Express 4.20, "Identifying (and Engaging Students in) Time-on-Task Activities"

Resources:

Finding Enough Time in the School Day

<http://www.jimwrightonline.com/pdfdocs/engagedTime.PDF>