

School Time Analysis Tool: OVERVIEW and USER'S GUIDE

OVERVIEW

The School Time Analysis Tool (STAT) is web-based instrument that helps schools determine how minutes and hours are spent across a typical week and across a whole year. It is designed to help schools to identify as accurately as possible the proportion of time spent in three broad categories: Academics, Specials/Electives, and Other. “Other” includes those times that are either not intended for learning, like lunch or passing periods, or *end up* not being used for learning, like days before vacations or interruptions for fire, tornado, and security drills.

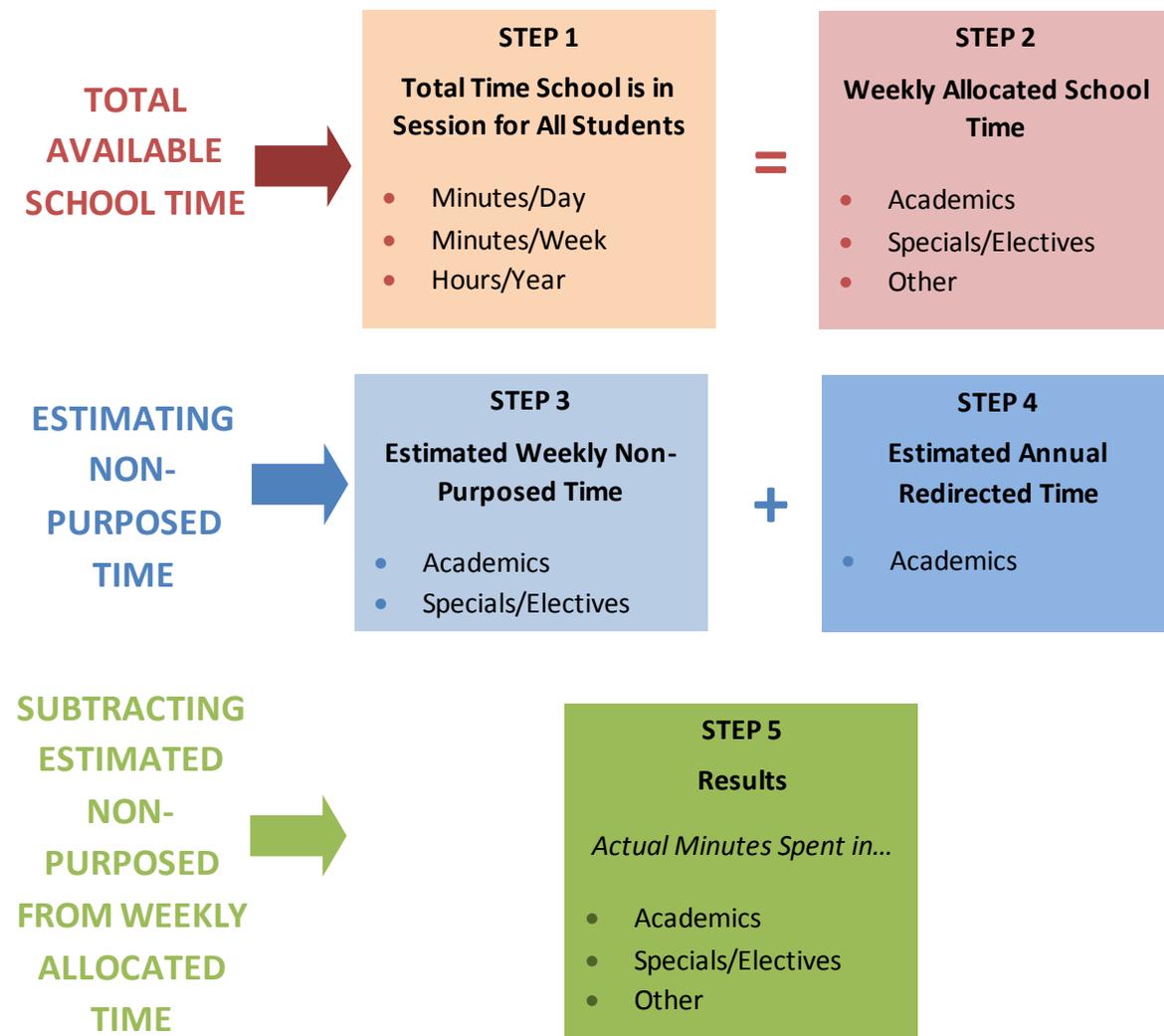
Because there is considerable variation in time usage among public schools in America, this single instrument cannot account for every school’s unique situation. While there is some flexibility built into this generic tool, educators will have to use their judgment in how to best fit each data category to their particular schedule and the distinct ways they spend time, as well as account for the fact that different groups of students may have different schedules. For this exercise, it is best to work with a typical or average schedule. Also important to note is this tool is designed to supply information based on several *estimates* of time use. The precision with which these estimates are figured will ultimately determine how accurate the data are, so it behooves users to be very careful in assigning time usage to various categories.

More important than the specific data the tool generates, however, is the *process* educators undertake to gather the data for STAT. It is the process of categorizing time usage and taking a hard look at how time is spent that should lead educators to consider modifications to policies and practices that optimize time. The bottom line is that this tool is less about generating precise information than it is about leading educators, through honest conversation, to better understand their time usage and, then, to take positive steps towards optimizing learning time in school. Keep in mind, too, that STAT is not intended to be a one-time effort. As schools continuously seek to improve and build upon current practices, this close examination of how time is used should be conducted regularly and time optimization should be a consistent goal for educators.

The school time analysis process begins by requiring users to input the total time available in a school day, week and year. The tool then asks users to determine how this total time (i.e., the total quantity of minutes and hours school is officially in session for all students) is allocated across academic subjects, specials/electives classes and activities, and other necessities of the

school day (e.g., lunch). This is known as “**purposed time**.” Next, the tool requires users to determine (primarily by estimating) those moments that, first, during the typical day and week, and, second, during the year, when the purposed time is not actually used the way it is scheduled (or intended). We call this time “**non-purposed time**” (and “**redirected time**” on an annual basis). Such estimates range from figuring how many minutes of class time are lost to distractions and discipline to how many hours in the year are required to take state and other standardized assessments. After determining these various uses of time, the tool will automatically calculate *actual* time allocations in a typical week and across the year and, in the end, indicate a school’s true instructional time.

The diagram below indicates the five-step process of the STAT tool:



FACILITATING THE PROCESS

As the above overview suggests, completing the STAT is a fairly complex process that necessarily means users will have to make many involved decisions about how time is actually used in the course of a school day and year. Thus, not only should completion of the STAT be conducted in a thoughtful and deliberative manner, users must also approach the process with a commitment to honest and open communication. Only by examining what is *really* happening with time use can educators bring about change in the use of school time.

Though there is no one best way to engage in the STAT process, we offer the following tips to help users as they proceed.

- Set aside at least 90-120 minutes to complete the analysis and facilitate a discussion around key findings, possible action plans, and next steps, including sharing the data with the full faculty and engaging them in a discussion of the findings.
- Make sure you're using the tool with a team that includes administrators and teachers from multiple grade levels/departments, who will have different perspectives on how time is allocated and spent for different students throughout the school.
- Ask participants to come to the meeting with sample weekly student schedules and information about the following "special" activities that may interrupt scheduled instructional time, such as:
 - Assemblies
 - Field Trips (including transportation to and from sites)
 - Mandated Testing
 - Daily transportation that impacts arrival and dismissal times
 - Transitional Days (like 1st and last day of school)
 - Early Release/Late Start Days
 - Special Events (science fairs, pep rallies, picture day, etc)
- Pick a weekly schedule for a "typical" student to use with the tool. If there are discrepancies and variability in how time is allocated and used for different kinds of students (subgroups, different grades, etc) you may want to complete the STAT for a few different sample students.
- Keep a "parking lot" of anything you classify as "Other" or any decisions you make as a team about how to classify an activity that is not obvious or intuitive. You may need to re-visit this list as the discussion progresses to see if some of these items should be classified elsewhere.

- Make note of any major discrepancies in time use among different students. For example, a participant may voice concern that the “typical” student schedule you’re using for the purposes of the tool does not reflect a different use of time across the day/week/year for a certain subgroup, such as ELL or Special Education students. You may want to record these in a Parking Lot to return to once you’ve completed entering data for your “typical” student. You can then decide whether to complete a STAT for these other students separately.
- Possible roles to assign participants: Time Keeper; Recorder (see things to note above); Parking Lot Manager (see Parking Lot suggestions above); Data Entry Captain

COMPLETING THE STAT: A STEP-BY-STEP GUIDE

After entering your school’s demographic information and location to set up a form, you can proceed to filling out the tool.

Step 1: Total Allocated School Time

Standard School Days: This category is the most straightforward portion of the tool. Users should input data for the time school is officially in session for all students, both the daily time and the total number of days in the school year.

Early Release/Late Start Days: Unless schools have at least one shorter day per week, the cells asking for Early Release/Late Start Day times should be skipped, entering a “5” in the number of standard days cell. If a school *does* feature an Early Release/Late Start Day at least once per week, input the start and stop time for the early release day and the number of release days per week. (The total of standard days and release days should add to “5”.)

Finally, enter the number of instructional days in the year. The tool will then automatically calculate the number of allocated minutes per week and hours per year and these will appear in the box in the right-hand column in this section and the following one.

Step 2: Weekly Allocated School Time

This section is intended to identify how the standard weekly schedule is distributed among three broad categories for allocated time: Academics, including academic support; Specials/Electives, including social and emotional programming; and Other, which essentially includes any allocated time not designated to the other two categories. **Users should enter the allocated weekly minutes for each of these classes and other activities.**

A few recommendations when completing section:

First, especially for secondary schools, where students have different schedules, it may be best to have the schedule of an actual student in front of you by which you can calculate weekly minutes. While there may be no standard schedule for every student, users should select what they consider to be the schedule of a typical or average student. After completing the STAT for this type of student, schools may wish to complete others for students with substantially different schedules (e.g., Special Education students, English language learners, etc.).

Second, remember to enter the total *weekly* minutes students are in certain classes or activities. So, for example, if a student has a 60 minute math class every day, users should enter “300” in the appropriate cell.

Third, there may be need for some judgment calls by educators as to how time use should be categorized. For example, should “homeroom” be accounted for in the “Other” category or in the “Specials/Electives” category? The answer will depend on what takes place during homeroom period and school personnel must come to agreement on how to characterize the time spent. However schools choose to identify time spent, users should be careful not to “double count”, allocating the same period of time to more than one category. Rather, every minute of the day needs to be accounted for exactly once.

FACILITATOR’S TIP

While completing Sections 2 and 3, ask probing questions such as:

- Is this schedule reflective of a typical student? Why or why not?
- Does everyone feel comfortable categorizing this activity this way? Let’s make note of why we decided to enter the data in this cell versus that one.
- Are we forgetting any activities that interrupt instructional time? Are there interruptions that aren’t reflected on the schedule, the calendar, or our list of special activities?

Finally, remember that every minute of “Total Allocated School Time” (determined through Step 1) must be accounted for and also must not exceed that total. That is, all the classes and activities recorded in Step 2 (the total of minutes entered in Academics, Specials/Electives, and Other screens) together should *add up exactly* to the total weekly allocated time. To aid you in this exercise, the orange box in the upper right that appears throughout Section 2 tracks how much time has been accounted for through the data inputted in the three screens. After completing these three screens, the “tracker,” should read “0.” A zero indicates that the total minutes used in a week exactly equals the total minutes available in a week. If the total does not read “0”, there is a discrepancy between the total minutes available in the school week and the weekly minutes distributed across the three categories. A negative number means users have used *more* time than is actually available; a positive number means that there are still

minutes available in the week that have not yet been accounted for. Users must be sure the “tracker” reads “0” before moving on to Step 3, and must make adjustments to fields on the three screens that comprise Step 2 until they have accounted exactly for all available weekly minutes.

Step 3: Estimating Weekly Non-Purposed Time

The “estimated weekly non-purposed time” is intended to capture those minutes during the typical week when time may be spent in class or another activity that diverges from its intended purpose. For example, when classes are interrupted to discipline students or to accommodate a public address announcement, these are minutes when essentially no instruction is taking place and should, thus, be subtracted from either the Academic or Specials/Electives categories.

Completing this category will require investigation and estimation. Ultimately, users need to recognize that there is no perfect way to account in general terms for those times during regular classroom operations when the students, as a group, are not engaged in direct learning. The quantity of minutes is highly variable from class to class and day to day and this generic tool is not intended to account precisely for these variations. Instead, it is the act of gathering data to learn when and how often those moments occur across a typical day and week that will lead school personnel to think more deeply about how they are using each allocated minute they have available.

Two suggestions for estimating weekly non-purposed time at the classroom level:

- Ask users to think of a typical class period and how many minutes are lost on in-class transitions, in-class interruptions, and PA announcements. Have them share their thoughts on this for their class and try to come up with an average for a typical class period. Then multiply by the number of periods/day, and then days/week. It won't be a precise number, but it's a start.
- Use the challenge of making these estimates an entry point to mention NCTL's Classroom Time Analysis Tool, an observation tool that helps teachers understand how they use time in a given class period for transitions, teacher-led time, student work time, and assessment of student learning. If teachers have real problems coming up with some reasonable estimates, you may want to have several teachers conduct a classroom time analysis and then return to this section of the STAT to input averages into the relevant cells.

Note that this tool assumes that when time is not used for its intended purpose, the minutes automatically are shifted from the Academic or Specials/Electives allocated time to the Other

category because this is the portion of the day that is reserved for (or ends up becoming) *de facto* non-instructional time.

Step 4: Estimating Annual Redirected Time

This type of time includes those days and hours during the year which are not part of the weekly schedule, but which, nonetheless, must be accounted for because they take away time from weekly scheduled classes and activities. **Unlike the other two sections, these estimates should be entered as total hours per year.** So, for example, if educators in a school with a seven-hour day determine that the first and last days of school are not actually used for instruction, they should enter “14” in the “transitional days” box (i.e., the total hours in two full school days).

Like in the “non-purposed” time category, these estimates will almost certainly be imprecise and mask variations from grade to grade (or student to student). Again, however, it is the exercise of accounting for these times throughout the year that should push administrators and faculty to think and talk more deeply about how the school (sometimes unintentionally) ends up taking time away from Academics and redistributing it to Specials/Electives or Other. This deeper understanding might then lead school personnel to reconsider how to alter the redistribution as it is currently taking place.

The tool assumes that these times are automatically redirected away from Academic time and towards either Specials/Electives or Other. Thus, there is no need to calculate an annual value for the Academic category.

Step 5: Results

After all the data are inputted in the proper cells, the tool will automatically calculate the number of weekly minutes in the three broad categories and the percentage of each. (The percentages are relative to each other, meaning that they will add up to 100.) It will also calculate the total annual hours in the three broad categories and the percentage of each. Schools then use this information to determine if changes should be made to how time is spent. It is recommended that you print out the results page, which appears in single-page format.

Step 6: Complete

In our ever-expanding effort to provide the best research and information to schools in their efforts to optimize learning time, NCTL asks that you submit the data you have generated so that we can conduct anonymous data analysis.

ANALYZING AND USING DATA FROM THE STAT

School administrators and faculty must now take what the data tell them about the uses of time and determine if time spent adequately supports the educational goals of the school. This exercise of interacting with the data would ideally take place in a single meeting or series of meetings. Here, staff can first think through the results of the data collection exercise, and then offer feedback and thoughts on any changes the group thinks warranted by this review of the data.

First Steps

Prior to the STAT data analysis meeting, the individual or team responsible for collecting the data should prepare a report that displays the raw data and analysis. The report should include the information collected through STAT, as well as a brief description of how the numbers presented were derived. For example, the report should state how assemblies were counted, how “transition days” were determined, and what activities were and were not included in the subject-level calculations. The methodology need not be explained extensively, but the report should be clear enough so that the entire staff understands why and how the time was accounted for.

Generating Discussion

After presenting the report, staff should engage in a discussion about the findings. Discussion should revolve around some key questions that probe the data. The point here is not to generate possible solutions (yet!), but first to better understand the data. The following are some questions to consider:

- o What surprises you about the data? What did you expect to find?
- o Where appear to be the greatest inefficiencies of time use?
- o What have you noticed about the use of time during the day or year that may not have been captured in the data analysis?
- o What times during the year and during the day suffer disproportionately from disrupted instructional time?
- o Are there particular grades or subjects that are using time more or less efficiently?
- o How does the scheduling of events or certain school-wide practices impact classroom instructional time?

After taking this first step of trying to better understand the data, the next step is to figure out where changes might be made to smooth out inefficiencies. Essentially, this discussion should operate as a brainstorming session where individuals are encouraged to openly share ideas and thoughts. At this first pass, the ideas should not really be discussed in-depth. All suggestions should be recorded by a scribe on a white board (or other medium where all participants can see each item). Like the initial phase of the discussion, this exercise should revolve around a series of questions, such as:

- o Should the block and/or class period times be modified? For all subjects or for some subjects? If so, what are the implications on the overall schedule?
- o Are there changes that should be made in transitions? Is there too much or too little time between classes? Can classrooms or class periods be re-arranged to reduce transition times?
- o Are there particular days (or portions of days) that could be re-captured for instructional time? If so, how?
- o What particular school-wide practices (e.g., public address announcements, assemblies, etc.) could be modified or eliminated to cut down on the intrusion on instructional time?
- o How does the use of physical space at the school impact the use of time?
- o Is the order in which activities or classes occur cutting into instructional time because of the preparation required?
- o Are there particular subjects (or topics within subjects) that require some specialized use of time that can be accommodated by some specific changes to the overall schedule?
- o Are there ways to reconfigure the schedule so that particular groups of teachers (or the whole faculty) can engage in common planning time during the school day?

FACILITATOR'S TIP

At this stage, open and on-going communication between administrators, faculty and the data collection team is absolutely necessary in order to ensure that the process generate the broadest possible impact. Emphasize to school staff that the process is a collaborative professional development opportunity: a time analysis will help all teachers to make the most of their time in class and implement school policies and practices to protect that time.

After everyone has had the opportunity to brainstorm ideas for possible changes, the group should then review and discuss each individual idea in turn to determine their feasibility and

potential repercussions. The group should also consider the steps needed to implement the each specific change.

Throughout the discussion, the scribe should keep careful track of which ideas have been discussed and, if possible, which suggestions relate to each other. In other words, all participants in the discussion need to be aware of how proposed changes intersect: how will one particular modification to the schedule or to a policy support or undermine other possible modifications and how can the school make change most efficiently and effectively? If the discussion is productive, faculty and administrators will begin to see that the best efforts to re-configure time often solve several problems at once.

Samples of Changes

Because any description of how changes can be brought to the school day and year can seem fairly abstract, several examples of changes that schools have actually made after conducting a time analysis are included below. These examples are intended to convey both the breadth of potential changes and the types of solutions that can emerge from particular problems, but they are far from the only solutions possible. In reality, there are countless types of changes that could result from data collected through the STAT.

School Type	Identified Problem	Solution ¹
Reducing Non-Instructional Time		
Middle school	Up to 7 minutes spent at the beginning of each class settling students down and getting class started	Instituted silent passing between classes in order to ensure that there would be no talking by students at the beginning of class and students would enter the classroom ready to learn.
K – 2	Class immediately preceding lunch would be cut by 5 – 7 minutes to enable young children to wash their hands	Transposed recess and lunch, so that students would play outside first and then would come inside for lunch after washing their hands. As an added benefit, children finished their lunches and the school observed less wasted food.

¹ Several of these examples are drawn from Hawley-Miles and Frank, *The Strategic School*. In the book, the authors emphasize that across high-performing schools the two principles of time usage to which most adhere are: (1) maximizing total time on academic subjects and including longer blocks of uninterrupted time and (2) varying time and the instructional program to meet the individual learning needs of all students (see p. 75, ff).

High school	Nearly all students coming late to class	Re-arranged classrooms into small interdisciplinary learning communities (instead of grouping classrooms by department), significantly reducing physical distance (and, in turn, time) needed to travel between class periods
High school	Large high school had long passing periods (6 mins.) between classes	Halved passing time to 3 mins., and, thus, added about 1,800 minutes to class time for the year.
Curbing Interruptions		
K – 8	Public address announcements interrupted instruction too many times throughout the day	Administration worked hard to limit general public address announcements, contacting individual classrooms when appropriate and feasible.
K – 2	Assemblies taking up too much time away from regular instruction	All assemblies scheduled only during first period of day (specials classes) and teachers given advanced notice of scheduled assemblies to plan accordingly.
Enhancing Instruction		
K – 6	Teachers were unable to schedule time for uninterrupted reading and guided reading groups	Instituted two-hour literacy block at beginning of each school day for entire school, with no enrichment classes, no assemblies or any other events scheduled during this first block.
6 – 12	Students lacked time to engage in project-based learning	Allotted a double-block period (total 102 mins.) once per week to those classes that depended on projects (English, science, history and art).
Building In More Time for Teachers		
K – 8	Teachers, by grade, rarely had the opportunity to meet and engage in common planning and share effective practices and concerns about individual students	Each grade was assigned a period of the day when students would attend a specials/electives class (phys. ed., art or music) and grade-level academic teachers would meet every day during this period.
6 – 8	Teachers rarely had time to meet by discipline	Shifted schedule to have four longer days and one early-release day per week. Teachers stay for three hours without students in building to meet in grade-level teams and discipline teams.

Concluding the Process

After the discussion where data are reviewed and ideas for change are discussed, decisions need to be made. What modifications to the schedule, to school policies and to instructional practices will be made and how will your school implement these changes? It falls outside the scope of this guide to recommend how the principal and other administrators should come to the decisions and what steps are needed to implement them. But, as emphasized throughout, consensus and collaboration is always preferable. In all cases, staff should be supported through the entire process, from modification to practice.

Administrators should also be sure to assess the impact of the implemented changes on learning and on school culture. There need not be a formal evaluation system put in place to measure impact, but there should be open lines of communication between the principal and other administrators and all constituencies affected by the changes (including parents and students). Teachers and administrators also need to understand that the STAT process should become a central facet of professional practice in the building and that a constant re-evaluating and reconfiguring of time use constitutes the essence of educational improvement.

At the conclusion of each STAT, all staff should be thanked for their efforts. They need to know that their work will be rewarded with positive modifications to school and classroom practices that will enhance the teaching and learning process. Indeed, an exploration of the way time is used in the school is intended to be a positive experience. If too many find that the repercussions of the analysis and the changes incurred negatively impact their work or lives, then the process cannot be considered a success.

One last thing to keep in mind. Schools across the country are now taking a hard look at their current use of time. In some cases, particularly in schools that serve disadvantaged children, educators are coming to the conclusion that they actually need an infusion of more allotted time to fully realize their educational goals. If you find the STAT process leads your school to the same conclusion, there are a growing number of schools and initiatives in states across the country through which to better understand how the expansion of the school day and/or year can take place. Our web site (www.timeandlearning.org) can point you in the right direction. In any event, NCTL hopes that the STAT will help your school take the right steps to increase learning time in order to generate real educational growth among your students.