

# Task Analysis and Time Estimation Skills

Being able to tell clock time is different from understanding the concept of time. Many students can read the clock perfectly well, but when asked to estimate how long an assignment will take, they can seldom provide an accurate answer. While some grossly underestimate the time required and set themselves up for disappointment and frustration, others greatly overestimate and feel overwhelmed before they even begin. Developing a sense of their individual task pace is essential for students to learn time management.

To estimate time with any accuracy, students also need to know the steps required to complete a task. *Task analysis* is the process of identifying what needs to get done to finish a given undertaking – whether it is a homework assignment or a long-term project like a research paper. Students sometimes do not recognize that a single homework assignment might have three parts. For instance, an assignment to read a chapter and define the vocabulary for a quiz the next day requires students to (a) read, (b) look up words in the dictionary, and (c) identify and remember information likely to be on the quiz. Students unpracticed at task analysis are likely to complete the first and second steps, then assume that the third step will happen on its own. They might do poorly on the quiz even though they believe they did their homework.

## **Purpose**

The purposes of the **Task Analysis & Time Estimation Sheet** (see Figure 2) are to raise students' awareness of the multiple steps that may be involved in a single task and to develop their perception of how much time it takes to complete that task.

Ideally, teachers should allocate class time over a week or so for students to work with the **Task Analysis & Time Estimation Sheets** (especially for elementary and middle-school students). If class time is unavailable, teachers can require students to complete the sheets at home and encourage parents or guardians to participate.

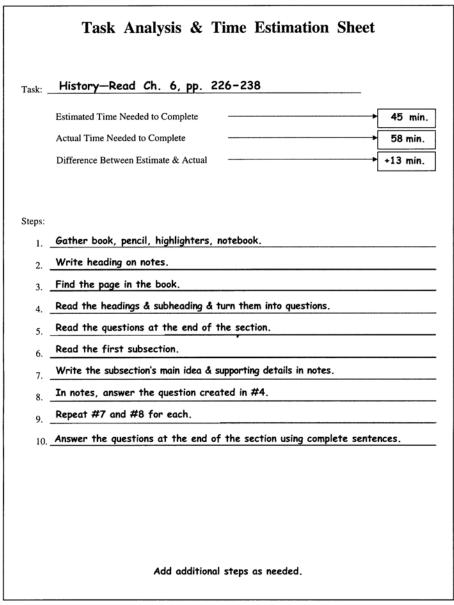


Figure 2. A worksheet for students to develop task analysis and time estimation skills.

#### **Materials**

- Kitchen-style timer with a bell
- Stopwatch
- Task Analysis & Time Estimation Sheets

### Steps

Teachers first show students how to operate the stopwatch, then ask students to set their stopwatches to 0:00.

#### **Choosing and Analyzing Tasks**

Students should start with a basic task, such as making their bed in the morning. Students list all the steps to complete the task in the correct order. Teachers then have students estimate the time they think it takes to complete the task, noting that students will have a fair idea if the task is routine.

Students next progress to a discrete academic task, such as a homework assignment or chapter reading. They generally need guidance at this point to avoid oversimplifying. For example, for an assignment to read the first section of chapter 6 in their social studies textbook, students might simply write one step – *read* – on their worksheets unless explicitly directed to break the task into smaller steps.

As students begin to grasp the complexity of simple, discrete tasks, teachers can extend task analysis to far more complex tasks, like writing a research paper and preparing for a final examination.

### **Testing Students' Time Estimates**

Once a task is analyzed and its time estimated, students prepare to complete the task and start the stopwatch. When the task is complete, they stop the timer and record the actual time on the worksheet. (Students should stop the timer if they are interrupted or have to stop for more than a minute so their actual times will be accurate.) Last, students calculate how much they underor overestimated their task time.

As stated, students should use the **Task Analysis & Time Estimation Sheet** over a week or more. They quickly learn to look at the previous day's actual time to estimate the current day's task time. The activity is helpful to teachers as well as students, as it reveals the wide differences in task-completion times within a class.

#### **Mastering the Routine**

Accurately estimating how much time it takes to complete tasks is essential for long-term planning. When students complete Task Analysis & Time Estimation Sheets for a period of time, they learn that their actual times vary according to the length and complexity of the assignment, their level of concentration, and other factors like fatigue, motivation, and interest. They also learn which tasks are quick and easy and which require more time and effort. Students get quite good at this when they practice enough.

After some intensive daily work on task analysis and time estimation, teachers can require students to track estimated and actual time on their daily task list in the strategic calendar system.

See the **Task Analysis and Time Management** template under "Resources" in this spotlight for one you can use in your classroom.

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