Just a Minute

Overview

In this activity students are encouraged to estimate the length of a minute and the number of things they can do in a single minute. It is an introductory activity designed to develop students' awareness of time and begin further conversations about measuring, estimating and calculating with time.

Extension activities have the potential to introduce the concept of rates such as metres or litres per minute.

Skills and Knowledge

- Estimating time
- Using timing devises (e.g. stopwatches, phones)
- Language of time and comparison

Preparation and Materials

- Clock, watch or phone with timing mechanism accurate to seconds
- Select several questions from Activity Sheet 1 which are appropriate for your students
- Photocopy Activity Sheet 2 (1 per student)
- Long tape measures and or measuring jugs (optional for practical activities)

Suggested Procedure

Introducing the topic

The topic of time can be introduced by a quick and effective estimation exercise, which will allow students to think about the length of a minute before undertaking a few other light-hearted exercises involving timing and estimation.

Explain:

- *Today we are going to talk about time.*
- *We will start by finding out how good you are at judging (estimating) one minute.*

Judging a minute

Explain the task:

- *I want you all to stand up.*
- *I'll need you to close your eyes for this.*
- *I am going to set this timer for one minute then say 'start'.*

- *Sit down when you think exactly one minute has passed.*
- *When you have sat down you can open your eyes.*

When the time reaches a minute, make a hand signal to those sitting down, so they will know how far out they were.

You, the teacher, should take note of who sits down closest to the one minute. If possible, record the two or three most accurate people.

Those who were still standing several seconds after one minute will, of course, be visible to all and they will know that they over-estimated.

If you have a small class, have list of names drawn up and try to note the number of seconds beside names as the students sit down.

When you get to 15 seconds past the minute say:

- *OK you can all open your eyes now.*

Announce the students who were the closest to a minute.

Ask:

- *Who estimated a time much shorter than a minute?*
- *Were you surprised by how long a minute was?*
- *Who went way over the time?*
- *Were you surprised by how fast a minute seemed?*
- *Did anyone use a strategy to help them judge the time?*

Hopefully, students will have various methods of counting seconds that they can share with each other. For example, saying 'one cat and dog, two cat and dog' is common for English speakers, as is 'one thousand, two thousand...'. People from other language backgrounds can be encouraged to share their strategies.

A second attempt

Ask:

- *Would you like to have another go and see if you get better?*

Repeat the exercise with the whole class and see if there was any improvement. By this time students should have a better idea of how long a minute actually is.

Explain:

- *Now you should have a better idea of how long a minute is.*
- *I am going to ask you to estimate some things that you can do in a minute.*

How many times

Use the question you have selected from Activity Sheet 1. For example, you might select 'In just a minute how many times could you write your name?'

Ask:

- *How many times do you think you could write your name in a minute?*

Explain the task:

- *First I want you to write down your estimate.*
- *Then you will try doing it for a minute while I time you.*
- *Then you can check how good your estimate was*
- *You should all have different answers because your names have different lengths.*

If possible use a timing devise that clearly signals a minute, such as a timer on your phone, or a stopwatch.

Get everyone ready to commence and time them for exactly a minute.

For tasks involving speaking

For the recitation tasks you could pair students: one to listen and count and one to recite. This will make counting easier, discourage cheating and foster cooperation between students.

If the equipment makes it possible, that is, if students can use their own phones, or you have a large clock with a second hand or a number of stopwatches, then students could do the timing themselves.

Ask them to speak quietly so they don't distract each other. If you can spread the pairs around the room then that would be even better.

If using pairs, change partners and roles for a second one-minute interval.

After the task

Allow students time to count their efforts.

Ask:

- *How many times did you manage to do it?*
- *Was it more or less than you expected?*
- *Who thinks their estimate was a good one?*

Try with one or two more of the estimation and timing tasks at this stage.

Other ideas could be used in following sessions as an introductory focus activity, a mood changer mid-session or, as a closing activity.

*** More practical tasks**

The more practical and potentially interesting questions marked with * will involve students in slightly more complex measuring and calculating, rather than simple counting.

They can be given to a whole class or to pairs of more advanced students as an extension task.

The shower question is ideal for homework assignment if it's not easy to access a shower at your training centre.

All of these tasks will be most effective if done in pairs.

When you set the task, encourage the students to think about possible strategies for measuring over a shorter time so that the measurement is possible with the available equipment.

For instance: if they walk for the whole minute the distance might take too long to measure with the tape available; running a shower for a minute will waste water, and then measuring with a jug will be time consuming; it is quite difficult to keep count of pulse beats for a whole minute.

Possible strategies:

- Time for only half a minute and double the result.
- Time for 15 seconds (a quarter of a minute) then double the number and double again.

Ensure that the strategies come from the students and that they understand them properly, rather than just following these steps without really knowing why.

Other tips to discuss:

- Use the pulse in the wrist or neck to count heartbeats – hold fingers other than the thumb to feel the pulse.
- Catch the water from the shower in a bucket or the bath, start timing after you have it running smoothly. Use a measuring jug to ladle it out.

Extensions

Encourage students to do further calculations with questions, such as:

- How much water would a ten minute shower use?
- How far could you walk in 10 minutes?
- How far could you walk in an hour?
- How many times does your heart beat in an hour?

Make sure that they first estimate the answers using rounding strategies before using calculators for exact calculations.

How many times in a minute

Select several tasks from this list.

In just a minute – how many times could you:

- *Write your name?*
- *Say or write the alphabet?*
- *Say the names of the states of Australia?*
- *Say the names of the capital cities of Australia?*
- *Recite the nine times table? (or others)*
- *Walk the length of the room?*
- *Touch your toes?*

In just a minute:

- *How high can you count?*
- *How high can you count in fives / twos / tens?*
- *How many measurement words could you write?*
- *How many words starting with ... could you write?*
- *How far can you count backwards from one hundred?*

In just a minute:

- *How many times does your heart beat?*
- *How far can you walk?*
- *How much water does a shower use?*

In just a minute?	Estimate	Accurate count
How many times can I write my name?		

Calculations: