

DAILY ASSESSMENT FORMAT

Date:	29th July 2020	Name:	Rajeshwari Gadagi
Course:	Coursera	USN:	4AL17EC076
Topic:	Basic statistics	Semester & Section:	6th sem 'B' sec
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FORENOON SESSION DETAILS

Image of session

The screenshot shows a video player interface for a course titled "6.01 Statistical inference". The video content displays a flowchart on a chalkboard background:

- probability that interval contains population value
- ↓
- confidence level
- ↓
- most cases 0.95
- ↓
- 95% confidence interval

The video player includes a progress bar at 3:43 / 3:56 and buttons for "Save Note", "Discuss", and "Download". A sidebar on the left lists course materials:

- inference and confidence interval for mean
- ✓ Reading: Inference and confidence interval for mean (10 min)
- ✓ Video: 6.01 Statistical inference (3 min)
- Video: 6.02 CI for mean with known population sd (5 min)
- Video: 6.03 CI for mean with unknown population sd (7 min)
- Confidence interval for proportion and confidence levels
- Sample size and example

A "Notes" panel on the right provides instructions on how to use the note-taking feature. The Windows taskbar at the bottom shows the time as 12:35 on 26-07-2020.

The screenshot shows a quiz result page titled "Confidence intervals". At the top, a green banner reads "Congratulations! You passed!" with a "Keep Learning" button and a "GRADE 100%" indicator. Below this, the "LATEST SUBMISSION GRADE" is also 100%.

The quiz question is:

1. You want to know how many hours of sleep new parents lose after they had their first baby. You know that the population mean equals 2.3 hours. Because you can't investigate the whole population, you take a sample of 100 people. You find an average sleep loss of 2.1 hours. What is, based on this sample, the point estimate of your population mean?

The possible answers are:

- ☒ 2.1
- ☐ 5.4
- ☐ 0.2
- ☐ 2.3

The question is worth 1 / 1 point. The Windows taskbar at the bottom shows the time as 12:55 on 26-07-2020.

SAMPLE DATA

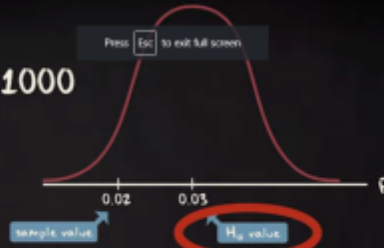
SIGNIFICANCE TEST

HYPOTHESES

expectations about population

1:27 / 5:20

$n = 1000$



$$\text{test statistic} = z = \frac{p - \pi_0}{se_0}, \text{ where } se_0 = \sqrt{\frac{\pi_0(1 - \pi_0)}{n}}$$

H_0 value

$$\text{test statistic} = z = -1.85, \text{ where } se_0 = 0.005$$

3:06 / 7:37

Statistical inference :-

Probability that interval contains
population value

↓
Confidence level

↓
most cases 0.95

↓
95% Confidence interval

Confidence interval

↓
Estimate a
population mean

↓
in 95% of the samples
the population value
will fall within the

the population value
will fall within the
confidence interval.

$$\bar{x} \pm 1.96 \sigma_{\bar{x}}$$

$$\sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}}$$

$$\bar{x} \pm Z_{95\%} (se)$$

$$se = \frac{s}{\sqrt{n}}$$

↑
Standard error.

Confidence interval.



2 Assumptions.



1. Randomization.
2. Approximately normal population distribution.