

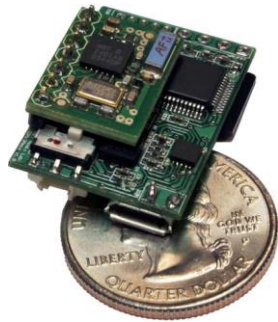
# Challenges, tips and tricks of teaching in **LARGE** classes



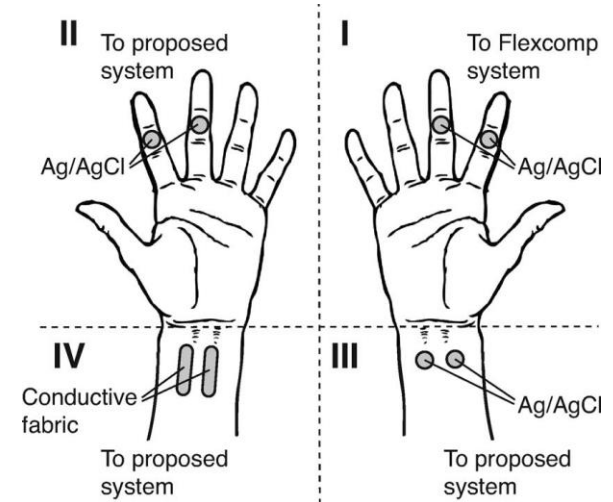
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# Study from MIT



EDA (**Electrodermal activity**) sensor module



**Electrodermal activity:** Electrical changes when the skin receives signal from the brain

- Measured at the surface of the skin
- A sensitive index of sympathetic nervous system activity
- Skin resistance varies with the state of [sweat glands](#) in the skin.

# Study from MIT



(19-year-old male) worn the sensor for 24/7 (for a week)

Activities recorded

Class

Sleep

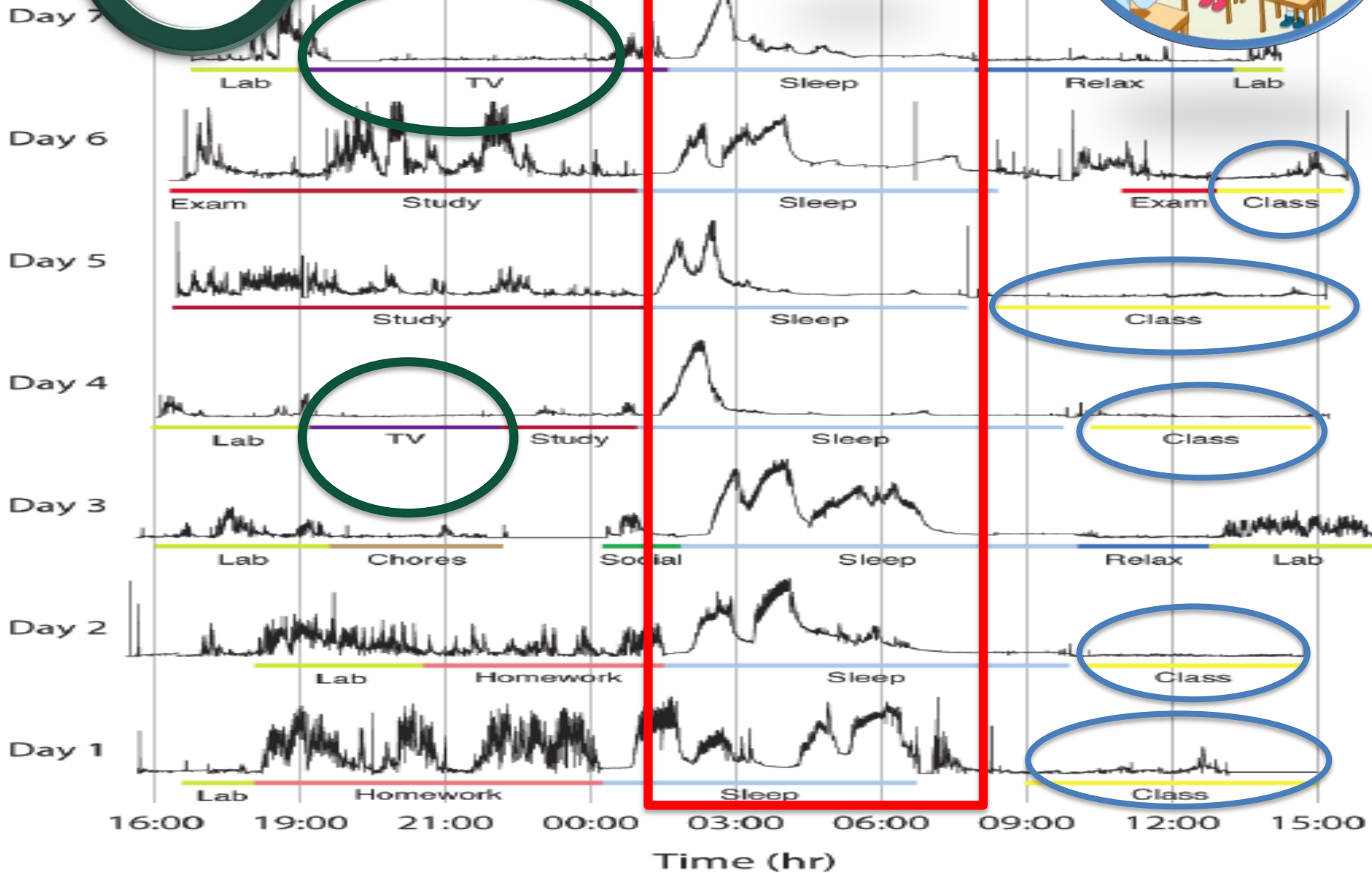
TV

Lab

Homework

Study

Exam



## To be honest

- Classes attended?
- How big was the class size?
- How was the instructor teaching?
- What did this student do during class?
- Did he eat a lot of carbs before the class?



All of the above are irrelevant for their research results!



# Motivation

1



Is lecturing effective?

3



Advantages of small and large classes

Increasing teaching effectiveness in large classes

5



Does class size matter?

2



CHALLENGES

4



that face teaching in large classes

Ways to deal with disruptive students and to engage reluctant ones

6



# Is lecturing effective?

“Some people talk in their sleep. Lecturers talk while *other* people sleep.”



*Albert Camus:  
(1913 – 1960) was a  
French philosopher,  
author, and journalist.*



## Is lecturing effective?

- “Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must **talk** about what they are learning, **write** about it, **relate** it to past experiences and **apply** it to their daily lives. **THEY MUST MAKE WHAT THEY LEARN PART OF THEMSELVES.**”



## Is lecturing effective?

- In 1976, the [study](#) authors determined that students needed a **three- to five-minute period of settling down**, which would be followed by **10 to 18 minutes of optimal focus**. Then — no matter how good the teacher or how compelling the subject matter — there would come a lapse. In the vernacular, the students would “lose it.”

## Is lecturing effective?

- Attention would eventually return, but in ever briefer packets, falling “to three- or four-minute [spurts] towards the end of a standard lecture,” according to the report.
- This study focused on college students.
- It was done before the age of **texting and tweeting**; presumably, the attention spans of younger people today have become even shorter.

## Is lecturing effective?

- Students retain 70% of information in the first 10 minutes of a 50-minute lecture, but only 20% in the last (McKeachie, 1986).

Is lecturing effective?

In its NORMAL setting: NO!



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# Does class size matter?



## Does class size matter?

“The optimal class size where most of the research has been done, in class sizes in grades K-3 is **20 or fewer students**”.



Don Ernst,  
Director of government  
relations with the Association  
for Supervision and  
Curriculum Development  
(ASCD)

## Does class size matter? Yes!

- “Small classes have been found to have **positive impacts** not only on test scores during the duration of the class-size reduction experiment, but also on life outcomes in the years after the experiment ended”
- Research shows that **students in the early grades perform better in small classes**. This is especially the case for students who come from disadvantaged backgrounds
- Small class sizes enable **teachers to be more effective**, and research has shown that children who attend small classes in the early grades continue to benefit over their entire lifetime”

Advantages of small classes

## Advantages of Large classes

- Better competition with more students.
- More ideas and insights to learn from.
- Better experience at speaking in front of large groups with more students.
- Easier to deal with conflicts, as a loss of 5 or 10 students on a particular day has less impact.





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## Challenges of teaching in Large classes



- “Students behave better and participate more often when they can’t hide in the back of the classroom”
- “In a big class, everybody in the back of the room is talking and giggling, and the little kids are throwing things at each other,” Jeremy Finn, of the University at Buffalo.

## Active learning?

- Undergraduate students in classes with traditional stand-and-deliver lectures are 1.5 times more likely to fail than students in classes that use more stimulating, so-called active learning methods. [2]

Can we use Active learning in large classes?

## Barriers of Active learning in large classes

- There are too many distractions. (In and out, side talks).
- There isn't enough time.
- The lecture hall layout is not conducive.





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# Increasing teaching effectiveness in large classes

1- Require students to **study** the lecture material before class &

**use Entrance & Exit Tickets!**

**Based on the readings for class today, what is your understanding of \_\_\_\_\_?”**

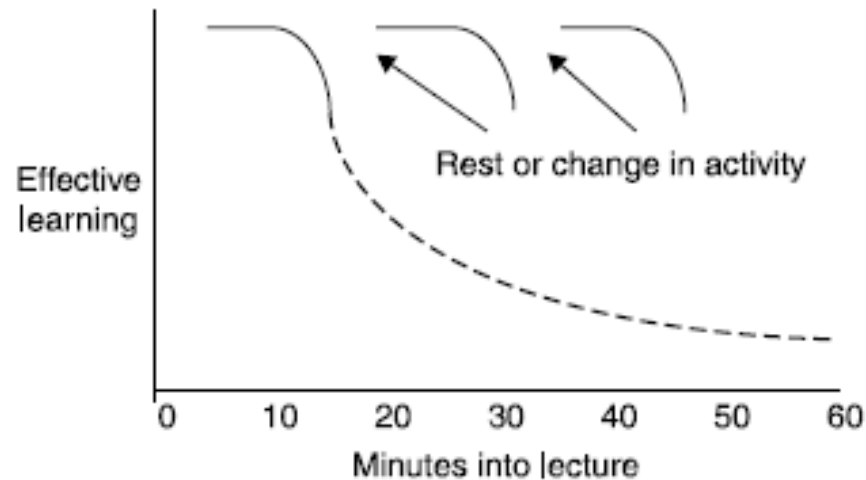
**Entry ticket**

**“What questions do you still have about today’s lecture?”**

**Exit ticket**

# Increasing teaching effectiveness in large classes

## 2- Change activity!



**Figure 8.1** Effect of rest or change of activity on learning

Source: Bligh (1972)

# Increasing teaching effectiveness in large classes

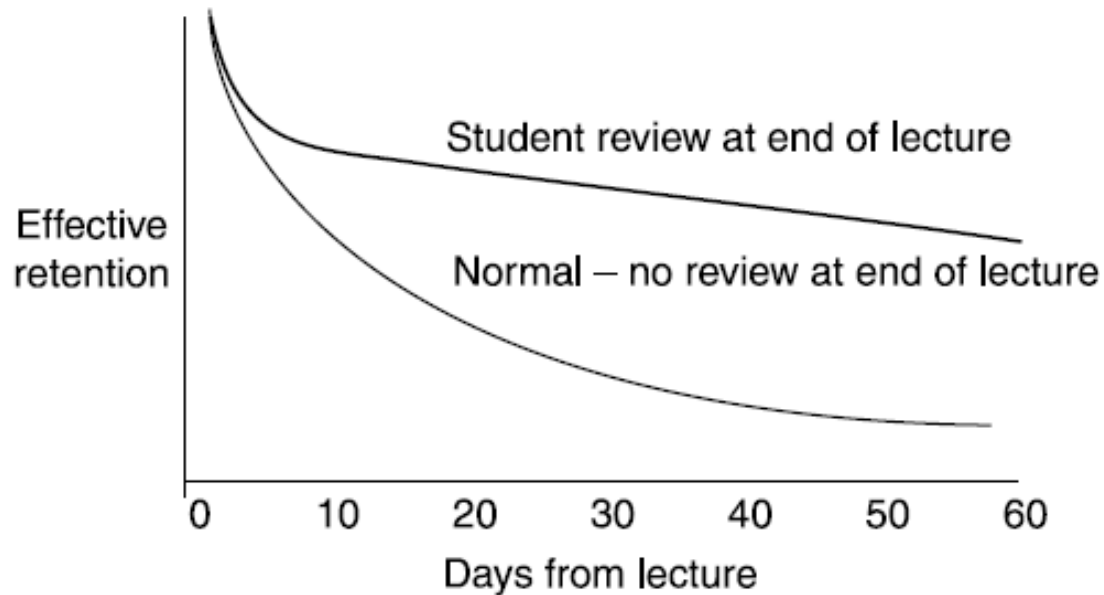
3- Focus on the U more the T!





# Increasing teaching effectiveness in large classes

## 4- Recap!



**Figure 8.2** Effect of consolidation at end of lecture on retention

*Source:* Bligh (1972)

# Increasing teaching effectiveness in large classes

## 5- Improve your public speaking skills





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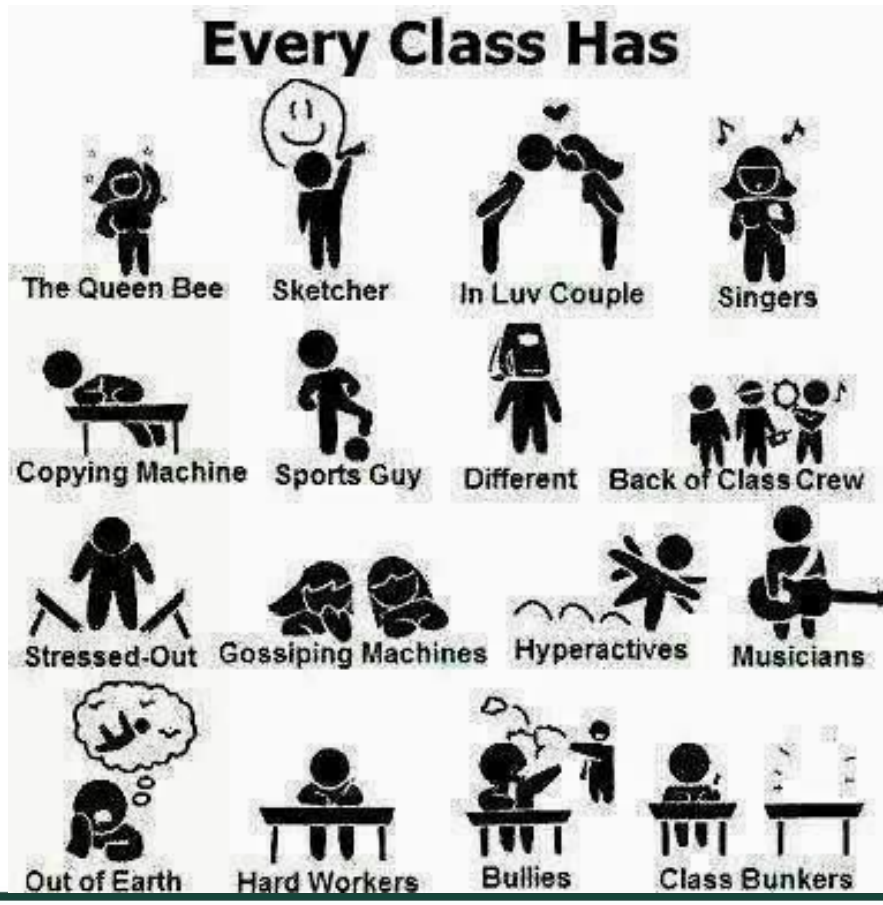


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# Students types



## Dealing with Disruptive Student Behavior

1- Try physically moving to the part of the room where the students are, and continue to lead the class whilst standing next to them.



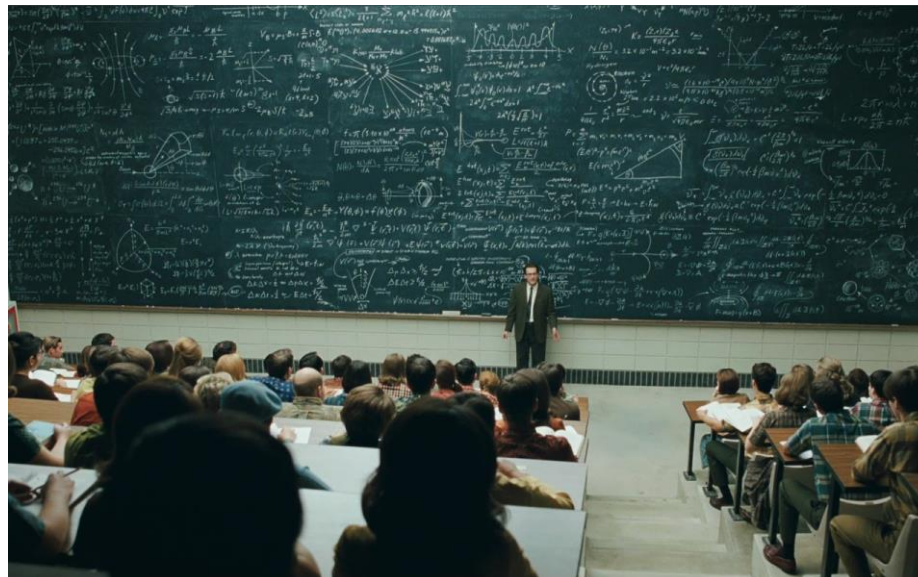
## Dealing with Disruptive Student Behavior

2- Direct a question to the area in which the noisy students are sitting. This focuses attention on that area of the class.



# Dealing with Disruptive Student Behavior

3- Try speaking more quietly. This causes the noisy students to become more obvious in contrast and other students may ask them to quieten down.



## Dealing with reluctant students

- The student who spends the whole period with their head down.
- The student who never turns anything in.
- The student who tries to talk or text the whole time.



You can be an expert in classroom management, but still struggle with engaging all of your students.



## Find Things They're Interested In:

- Learn about them, and know what they love doing
- If they like **skateboarding** , talk about it.
- “At the start of every lesson, I have a “**hook**” to get the students engaged. It could be **a story, a Youtube video, or a game**, among other things. One day, I decided to have my hook be a skateboarding video, that I tied to a downward slope and momentum once you start down a certain path” Dani Sorensen.

## Move Them to the Heart of the Class

- “One of my students, was a very pretty, and seemingly outgoing girl. **She would come to class every day, turn in her work, and then listen to her music.**
- She would sit next to a group of kids that she was definitely not friends with. So one day, for some group work, I decided to make **a seating chart** to put her in with some other girls in the class.

## Move Them to the Heart of the Class

- Slowly, she started to **sit nearer**, and nearer to them, and then she **started talking** to them.
- Once she started talking to them, she felt more **comfortable speaking** in class. We got her put into the heart and soul of the class, and pretty soon, she began to gain that same **heart and spirit**.

# Ask Them to Help You With Something (Anything!)

- A reluctant student will just do the **bare minimum**
- They go to class, listen, quietly do the work (or maybe not so quietly!), and then slip out without a word
- You can't engage them in class discussions, and you don't know what to do anymore.

## Ask Them to Help You With Something (Anything!)

- I had a couple of my reluctant students come with me into the hall, and I said “**hey, could you guys please help me with part of the lesson today? It will be really fun.**”
- I could tell that they **immediately perked up** at the idea of being singled out to help. **It made them feel important.** It made them feel trusted, and it let them have fun.

## Pull Them Aside and Offer to Give a Second Chance

- I had one young man who received a 26%, which brought his grade down from a “B” to an “F”. I pulled him aside after class, knowing that he was a reluctant student, and offered to let him retake the test. I said “John (name has been changed), I know that you are a good student.

## Pull Them Aside and Offer to Give a Second Chance

I get that feeling from you. You didn't get the best score on your quiz, so if you would like, you can review over the weekend, and then come in and retake it. I know that you'll ace it this next time." John immediately brightened up and promised to study over the weekend. Since then, he has been more engaged in class, and gotten much better scores on all of his classwork.



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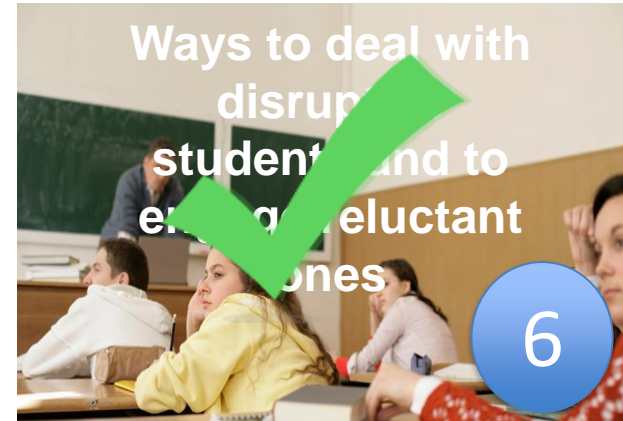
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## Conclusion

- Normal lecturing techniques are NOT effective.
- Class size matters!!
- Each class size has its own pros and cons.
- Effectiveness can be increased in large classes by following few tips and tricks.
- It is not impossible to regain the reluctant and disruptive behavior student behavior in large classes.



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ARIGATO  
SHUKURIA  
JUSPAXAR  
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YAQHANYELAY  
SUKSAMA  
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MEHRBANI  
PALDIES  
BOLZIN  
MERCY  
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