THE LAW OF ACTION, REACTION, AND FLIPPED LEARNING
Pupils are active while learning: they are looking for knowledge, they organize their own learning time, they can work in groups or by themselves, and they can search for additional sources if they wish.
Pupils from two eighth grade classes discussed the same topic in two different ways:

8A: flipped learning methodology

8B: regular classroom teaching
After the lesson I gave a written assignment on the topic discussed to pupils in both classes.
I examined the results which are shown in the following graph:

Pupils from class A who tested flipped learning methodology showed a greater understanding of the topic when solving the written assignment in comparison to pupils from class B who were taught by regular classroom teaching.
Afterwards I asked the pupils to complete a questionnaire.

**SHORT QUESTIONNAIRE ABOUT FLIPPED LEARNING**

A short while ago, some of you had a chance to test flipped learning methodology: during our classroom, you solved exercises on the topic that you previously viewed online. I would like to analyse your impressions, therefore I am asking you to answer the questions below. The questionnaire is anonymous.

GRADE: _____                 CLASS: ____________                TOPIC: __________________

1. I was learning a new topic (circle):
   A  As a flipped learning online.  
   B  Regular physics lesson.

2. I found the lesson (circle):
   A  very interesting  
   B  interesting.  
   C  uninteresting.

3. If you learnt the new topic with flipped learning: How many times did you replay the video recording (circle)?
   A  Never.  
   B  Once.  
   C  Twice.  
   D  Three or more times.

4. Would you prefer flipped learning more often during the school year (circle)?
   A  yes  
   B  no.  
   C  I don't know.

5. Evaluate your understanding of the topic you were learning : (circle)
   A  I understand it very well.  
   B  I understand it.  
   C  I need additional explanation.

6. Your thoughts and notes: ___________________________________________________________
Questionnaire results are presented in following table:

<table>
<thead>
<tr>
<th>Questions</th>
<th>8A flipped learning</th>
<th>8B Classical teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. I find the course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A very interesting</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>B interesting</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>C uninteresting</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. How many times did you replay the video recording?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A never</td>
<td>0</td>
<td>/</td>
</tr>
<tr>
<td>B once</td>
<td>6</td>
<td>/</td>
</tr>
<tr>
<td>C twice</td>
<td>5</td>
<td>/</td>
</tr>
<tr>
<td>D three or more</td>
<td>1</td>
<td>/</td>
</tr>
<tr>
<td>4. Would you prefer flipped learning more often?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A yes</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>B no</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C I don't know</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5. Evaluate your understanding of the topic you were learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A very well</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>B well</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>C I need more explanation</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>6 comments</td>
<td>1 comment</td>
</tr>
</tbody>
</table>

Most of the pupils liked the flipped learning methodology and would like to practice it more often.
Conclusion:

The Traditional Classroom
Teacher’s Role: Sage on the stage
Homework: Reading & questions due tomorrow
Lecture today

The Flipped Classroom
Teacher’s Role: Guide on the side
Homework: Watch video on Dardasa tonight!
Activity today

FlipPedi Learning
Success with a lot of wish and attention
Thank you.
Online picture titles in order:

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcTzi7CVEgdGDPUnlUKgp8dEkADCTFlhwkzqraXw5uYYHBmF_BDQw
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https://encrypted-tbn3.gstatic.com/images?q=tbn:ANd9GcSx4t8am1pjQG90uAeWE2WJpUeqYX-KNs3_wDTU8VdiH8A-VKPYfQ
http://ii.library.jhu.edu/files/2013/08/flippingtheclassroom.png