Massachusetts Institute of Technology

Quick Guide for Developing BLOSSOMS Lessons

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Quick facts and Highlights

BLOSSOMS, stands for **Blended Learning Open Source Science or Math Studies**.

The vision of BLOSSOMS is to develop a large, free repository of interactive learning video modules for high school math and science classes created by gifted volunteer teachers, students and university professors from around the world.

The initiative blossomed as education is becoming global and frontiers are becoming blurred in sharing human knowledge.

Effective, Free, and Global

Effective

Through the BLOSSOMS initiative we are redefining the concept of "classroom". Classroom doesn't have to be limited to a teacher and students. The BLOSSOMS initiative makes it possible to engage a gifted teacher or university professor via BLOSSOMS video listen in an interactive fashion.

Free

BLOSSOMS videos are made available to teachers to use for free, thus promoting low cost but highly effective education.

Global

BLOSSOMS lessons are authored by teachers and university professors from anywhere in the world, to be used by students anywhere in the world, for the purpose of enabling easy access to education and human knowledge in science and mathematics.

Call for BLOSSOMS Lessons

We invite gifted teachers, students and university professors to join the BLOSSOMS initiative by contributing effective and engaging lessons according to BLOSSOMS protocols. So join us and share your knowledge!

BLOSSOMS video lessons follow a well-defined pedagogical and instructional design. They have to be engaging, interactive, thought-provoking, and involve critical thinking. They should contain challenging questions and activities that incite students to think critically and collaboratively.

Think of your lesson as one piece of 25 minutes, and then cut it into segments of 3 minutes or less, ending each segment with a challenging question and/or an activity. The next segment should start with the answer to the question and/or summary of results from the activity, from the previous segment. The first segment should be no more than 2 minutes, during which you will present yourself, present the concept, highlight its relevance to the real world, and ask a confounding question which will serve as a dramatic introduction to the lesson. The last segment of the lesson should be a wrap up of the lesson by then all objectives of the lesson should be achieved. After the lesson is completed, the final segment is a Video Teacher's Guide, which is your 'private conversation' with the in-class teacher – stating learning objectives of your module, prerequisites and suggested activities during each of the breaks between your segments.

What you need to know about a BLOSSOMS lesson

- A BLOSSOMS lesson is not a lecture.
- A BLOSSOMS lesson presents a topic from an unusual, interesting angle.
- The video segments should be 3 minutes or less, and never more than 4.
- The first segment needs to be no longer than 2 minutes and must excite the interest of both teachers and students.
- With video technology, segments can be filmed in interesting locations. Stay away from the classroom as much as possible!
- A lesson must provide challenging, thought-provoking classroom activities for the video breaks.

There are many milestones on your way to designing your BLOSSOMS lesson. These are,

- Write the concept

- Write the architecture

- Write the pseudo-script

- Write a teacher's guide

- Do the Videotaping!

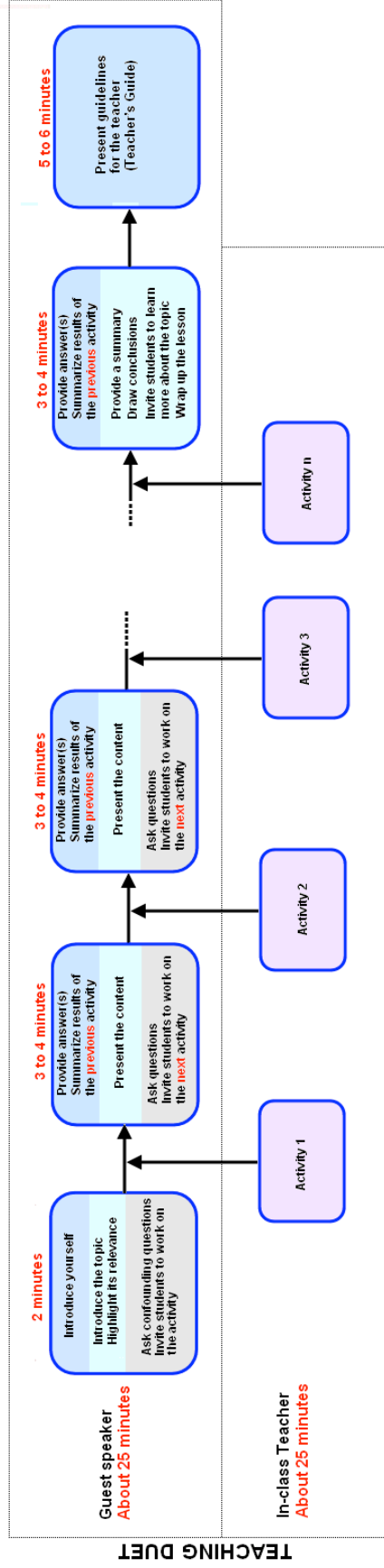- Provide information to be included on the web page of your video lesson

The guidelines to be followed for each step are listed in the protocols. Each step has to be approved by the MIT BLOSSOMS team before you can move to the next step. Feedback and suggestions will be sent to the author of the lesson, eventually with deadlines for revisions to be made.

Your first milestone will be writing the concept. Before you start working on your concept, it is necessary to read all protocols so you can have a clear idea about the expectations and requirements for each milestone listed above. As you think about the concept, come up with a title that is attention-grabber. The content of your concept is as important as the title; it should highlight the importance of the topic, its relevance to the real-world, creativity and originality with which the topic is approached, the settings where the lesson is to be presented, the activities of the lesson, the graphics and media to be included. The media and graphics to be included need to be from an open source; if not, then you should locate the owner of the material and inquire about the possibility of using that material in your lesson. A formal permission letter should be in your possession before you start videotaping. The concept should also answer the following question,

Why do you think this concept topic would make an excellent BLOSSOMS lesson?

BLOSSOMS INTERACTIVE VIDEO LESSON

Design Diagram

2 minutes

Introduce yourself

Introduce the topic
Highlight its relevance

Ask confounding questions
Invite students to work on the activity

3 to 4 minutes

Provide answer(s)
Summarize results of the **previous** activity

Present the content

Ask questions
Invite students to work on the **next** activity

3 to 4 minutes

Provide answer(s)
Summarize results of the **previous** activity

Present the content

Ask questions
Invite students to work on the **next** activity

3 to 4 minutes

Provide answer(s)
Summarize results of the **previous** activity

Provide a summary
Draw conclusions
Invite students to learn more about the topic
Wrap up the lesson

5 to 6 minutes

Present guidelines for the teacher
(Teacher's Guide)

Activity 1

Activity 2

Activity 3

Activity n

Guest speaker
About 25 minutes

In-class Teacher
About 25 minutes

TEACHING DUET

A vertical arrow indicates a prerequisite for the next segment, i.e., a task that needs to be completed before continuing with the next segment.

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