The Flipped Classroom Instructional Module

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About the Author

- Raised in Honolulu, Hawaii
- BA in Pure and Applied Mathematics from Concordia University, Canada
- Master’s student in ETEC program at UH Manoa
Where are you from?

Use the text tool on the left to participate!
Are you familiar with the flipped classroom model?

A: No.

B. Somewhat. I have heard of it before.

C. Yes. I have used it in my classroom.
Are you familiar with the flipped classroom model?

A: No.

B. Somewhat. I have heard of it before.

C. Yes. I have used it in my classroom.

Use the polling tool on the left to participate in the survey!
The Flipped Classroom Model

- Not a “new” teaching model
- Defined by Aaron Sams and John Bergmann
- “Flips” homework with classroom activities
- No longer a teacher but a coach
- Frustration to the classroom
Why this topic?

- Flipped classroom teacher
- Participated in educational technology conferences
- Shared my experiences and found a gap
- Teachers expressed the desire to learn, but lacked the training
Problem Statement

“The purpose of this project is to design an instructional design module using Google Sites to assist St. Andrew’s Priory middle school teachers in creating flipped classroom lesson plans. Teachers will learn to create their own interactive lectures, plan effective classroom activities and apply the flipped classroom model to their own classrooms.”
Part I: Methods
Instructional Strategies

- Combination of two instructional strategies
- Use best of each model to achieve desired results

Keller’s ARCS Model of Motivational Learning
- Attention, relevance, confidence and satisfaction
- Teachers possess the technical skills
- Each chapter created using one of the four factors
- Persuade learners to use in their classroom
Instructional Strategies

Gagne’s Nine Events of Instruction

✧ Nine events used throughout module
✧ Certain elements were key factors in module’s creation
  ✧ Goal
  ✧ Presentation of material—chunking
  ✧ Guidance
  ✧ Practice
Technologies & Data Collection

- Module created using Google Sites
- Connected to Google Forms—data collection through tests
  - Demographic Survey
  - Embedded test questions
  - Summative Survey
Welcome!

Thank you for taking your time to complete The Flipped Classroom Module. Please note that your personal information will be kept confidential. Your feedback and honest answers in the survey questions are greatly appreciated. This module was created to help K-12 teachers learn about flipped teaching. In this module you will view some examples, read about why the flipped classroom model can benefit you and your students, and learn the steps and procedures to creating your own flipped teaching lessons. I hope you enjoy this module and give flipped teaching a try.

Please use the tabs to guide you through this module. **You must go in order.** Before beginning the module, please complete the survey questions in the "Demographic Survey" section of this website. Then, you may start on Chapter 1. In each chapter you will find questions to help you retain the information and measure your learning progress. Please be sure to do those as well. When you are finished going through all of the chapters, there is one final survey for you to complete in the "Summative Survey" section.

Thanks again, and good luck!

Please be sure to send me your consent form.
The Flipped Classroom Module

Demographic Survey

Please fill out the following survey. You must complete the questions before proceeding to the module.

1. What is your Learner ID? *
   This is created by taking the initials of your first and last name followed by the last 4 digits of your phone number. Example: YS1219

2. What is your gender? *
   - Male
   - Female
Chapter 2 - Instructional Material Examples

Before we look at any examples, it is important that you understand that there is no precise way to flip your classroom. This module will describe five of the many ways to distribute instructional materials and give various suggestions for classroom activities. Remember that you know your classroom and your students best. Any suggestions given in this module should be taken with your personal teaching environment in mind.

Short paragraphs

Instructional Material Examples

Here are examples of five ways you can deliver content to your students. Don't worry about how the teachers created these lessons. We'll get into that later. For now, take a look at how each method delivers the material differently. Start thinking of your own courses and how each one might be used in your classroom.

1. Self-created screencasts

In this method, screencasts are taken of previously created presentations with audio commentary. Many instructors also use this method to create how-to videos explaining various technological skills needed for their course.

The following example is from a 6th grade social studies course. There are several great screencasting tools available for free. Screencast-o-matic is a great service that runs from your web browser. Users have the option of rewinding in small portions to edit--this is very helpful if you make a mistake and don't want to redo the entire recording. Mac users can also use Quicktime. However, if you make an error, you need to start over again.
Subjects

- Originally for St. Andrew’s Priory middle school teachers
- Expanded to teachers across North America through social media and mass emails
- 18 original participants, 15 sets of data analyzed
Part II:

Results
Surveys

* 3 types of surveys used in the module

Demographic Survey
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Percentage Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male/Female</td>
<td>Male: 20%</td>
</tr>
<tr>
<td></td>
<td>Female: 80%</td>
</tr>
<tr>
<td>Age (in years)</td>
<td>0-17: 0%</td>
</tr>
<tr>
<td></td>
<td>18-29: 73.3%</td>
</tr>
<tr>
<td></td>
<td>30-44: 13.3%</td>
</tr>
<tr>
<td></td>
<td>45-59: 13.3%</td>
</tr>
<tr>
<td>Highest Degree Received</td>
<td>High School Diploma: 6.7%</td>
</tr>
<tr>
<td></td>
<td>Bachelor's Degree: 73.3%</td>
</tr>
<tr>
<td></td>
<td>Master's Degree: 20%</td>
</tr>
<tr>
<td></td>
<td>Doctoral Degree: 0%</td>
</tr>
<tr>
<td>Currently Teaching</td>
<td>Yes: 66.6%</td>
</tr>
<tr>
<td></td>
<td>No: 33.3%</td>
</tr>
<tr>
<td>Grade Specialization</td>
<td>K-5: 46.7%</td>
</tr>
<tr>
<td></td>
<td>6-8: 33.3%</td>
</tr>
<tr>
<td></td>
<td>9-12: 26.7%</td>
</tr>
<tr>
<td></td>
<td>Post-Secondary: 0%</td>
</tr>
<tr>
<td>Teaching Experience (in years)</td>
<td>0-5: 46.7%</td>
</tr>
<tr>
<td></td>
<td>6-10: 13.3%</td>
</tr>
<tr>
<td></td>
<td>11-20: 6.7%</td>
</tr>
<tr>
<td></td>
<td>20+: 0%</td>
</tr>
</tbody>
</table>
## Previous Knowledge

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Most Frequent Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am familiar with the Flipped Classroom Model.</td>
<td>3 Agree</td>
</tr>
<tr>
<td>I have had training on flipped teaching.</td>
<td>2 Disagree</td>
</tr>
<tr>
<td>I use the Flipped Classroom Model in my courses.</td>
<td>2 Disagree</td>
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Surveys

- 3 types of surveys used in the module

Embedded Tests

Demographic Survey
Embedded Test Questions

- 16 total questions
- 8 based on content directly in the module
# Embedded Test Questions

*6 Remaining questions used to form connections to the module and participant’s learning experience*

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Reflection Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4</td>
<td>Which form of instructional materials would best fit with your classroom and why?</td>
</tr>
<tr>
<td>3.3</td>
<td>Which of the mentioned classroom activities are you most interested in trying in your classroom and why?</td>
</tr>
<tr>
<td>4.2</td>
<td>How can the flipped classroom positively affect your classroom?</td>
</tr>
<tr>
<td>4.3</td>
<td>Do you feel the flipped classroom model could be successful in your school? Think about your students, administration and the resources available to you.</td>
</tr>
</tbody>
</table>
Embedded Test Questions

- Chapter 5 embedded question gave a case study
  - 73% completed correctly
  - 27% omitted the question

- Final question asked participants to fill out a Flipped Classroom Lesson Plan
  - Technical difficulties, 7 answered the question
  - All 7 responses were correct
Surveys

- 3 types of surveys used in the module

- Demographic Survey
- Embedded Tests
- Summative Survey
### Summative Survey

- Likert-scale to determine response to module’s structure

<table>
<thead>
<tr>
<th>Summative Survey Question</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lessons were easy to follow.</td>
<td>3.3</td>
</tr>
<tr>
<td>The chapters were well divided.</td>
<td>3.6</td>
</tr>
<tr>
<td>The practice questions in the module helped in reviewing the content.</td>
<td>3.6</td>
</tr>
<tr>
<td>The length of the module was reasonable.</td>
<td>3.4</td>
</tr>
<tr>
<td>My level of understanding of the flipped classroom has increased from this module.</td>
<td>3.6</td>
</tr>
</tbody>
</table>
“Do you feel prepared to use the Flipped Classroom Model in your classroom?”

Yes: 80%
No: 13%
Unsure: 7%
“Will you attempt the Flipped Classroom Model in your classroom?”

- Yes: 80%
- No: 7%
- Unsure: 13%
“What did you not enjoy about the module?”

Chapter 5 I found it a bit difficult to come up with an activity since I only had a basic understanding of the topic. I think if I knew more details about the subject I probably could have came up with a better activity.

It was too long, and too much text per page.

The length - it was longer than I expected.

I would have appreciated if there were some mention of studies about the rate of success of the model. It would be interesting to know whether there is of measured improvement in learning for students. Nonetheless, I am optimistic about the impact of the flipped classroom model.

Having to scroll up to get to the next chapter
“What did you enjoy about the module?”

The examples were awesome.

The clarity and clear information

Interesting topic, lessons were chunked well

I really enjoyed the module! It was really easy to read and follow. I especially liked how you had examples for all subject areas. You didn't just focus on one subject area but you had examples for multiple subject areas.

The fact that this module itself follows the flipped classroom model, only that there is no in-class activities - yet! :)

The examples were awesome.
Part III:

Discussions & Conclusions
Discussions

- Many familiar with the model, minimal training
- Digital natives required minimal technology training
- High scores and positive feedback on embedded questions showed useful to module
- Technical difficulties with chapter 6
- 12 out of 15 state they would use the model in their classrooms
Conclusion

- Suggestions for future research
  - New technologies to avoid technical difficulties uploading
  - Larger group of participants
  - Specify that participants must be future or current teachers
- Feedback and responses suggests module’s success
Thank you!

ETEC Department
Family & friends
Module participants
Questions?

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www.theflippedclassroomhawaii.com