Flipped classrooms: What are they and how can I use them?

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WITH HELP FROM MEGAN WEBER, DAN LARKIN, AND AMY RAGER

Photo by Christine Lee, MAISRC
### Invasive Species Volunteer Programs at UMN Extension

<table>
<thead>
<tr>
<th>Year</th>
<th>Program</th>
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<tbody>
<tr>
<td>2008</td>
<td>Forest Pest First Detector (FPFD)</td>
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<tr>
<td>2009</td>
<td>EAB + insects + Oriental Bittersweet (OB)</td>
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<td>2010</td>
<td>Ash survey</td>
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<td>2011</td>
<td>EAB &amp; OB survey</td>
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<tr>
<td>2012</td>
<td>Invasive Blitz</td>
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<tr>
<td>2013</td>
<td>Wasp Watchers</td>
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<tr>
<td>2014</td>
<td>ISMTrack</td>
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<tr>
<td>2015</td>
<td>UAV &amp; 3D</td>
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<td>2016</td>
<td>FPFD &amp; AIS Detector</td>
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<td>2017</td>
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**New infestations**
- Forest Pest First Detector (FPFD)
- EAB + insects + Oriental Bittersweet (OB)
- Ash survey
- EAB & OB survey
- Invasive Blitz
- Wasp Watchers

**Levels of invasive species**
- New infestations
- Established populations

**Established populations**
- ISMTrack
FLIPPED CLASSROOM
is an instructional strategy and a type of blended learning that reverses the traditional learning environment by delivering instructional content, often online, outside of the classroom. It moves activities, including those that may have traditionally been considered homework, into the classroom.
How effective was the flipped classroom?
AIS Detectors Results

Online Training Scores

Workshop Scores

- 60-69%
- 70-79%
- 80-89%
- 90-99%
- 100%
What participants are saying…

It was very well done! No boredom whatsoever!

It was much more interactive and thus, easier to learn the material. It is hard to listen through and retain knowledge from multiple power point presentations.

Knowing the material before class actually makes the class more productive. Not concerned as much about learning the material because you know the basics. Because of this you can ask better questions that will expand your knowledge.
What participants are saying...

Loved it. Much more conducive to really learning and using the material.

I really benefited from the flipped classroom approach and enjoyed the small group sessions. Also felt the Moodle course was a great beginner course.

I really liked this format better and enjoyed the small group discussions upstairs.
INITIAL PRACTITIONER SURVEY RESULTS
NUGGETS OF WISDOM

Well suited to online learning:
Readings, introductory concepts, identification characteristics, life stages, ideas that need time for reflection and knowledge assessments quizzes.
Well suited to in person training:
Specimen activities, discussion, scenarios, peer-learning, interacting with professionals, question & answer and practicing skills.
NUGGETS OF WISDOM

Organization & Facilitation matter

- Online learning space must be concise and well organized.
- Must remind participants to complete online activities.
- In person facilitation requires skill and careful consideration.
- Must preparing experts and facilitators.
- Need quality displays and hands-out materials.
- Cheer learning, achievements and stated reflections.
Thank you.
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