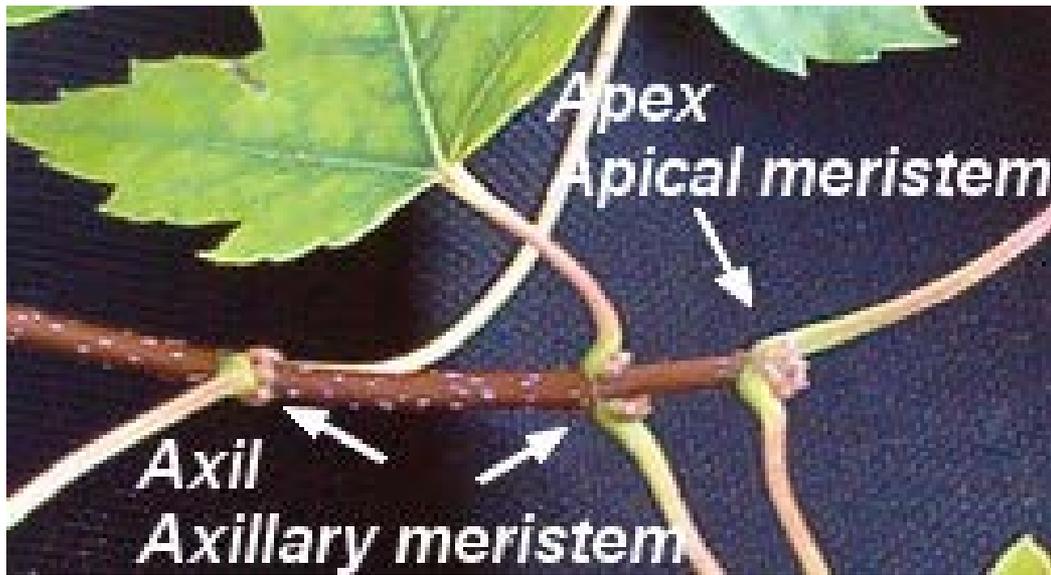




Flexibility and effectiveness of a hybrid-format professional development workshop

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Problem Statement

- Seven high school teachers will pilot a new CIS course in academic 2010-11
- High school teachers need a workshop that prepares them to instruct the course
- Plant Propagation is complex in structure and content
- The course coordinator is a newbie



Workshop Planning

- 5 Philosophies
- + 7 Requirements
- + 5 Criteria for developing goals
- + 8 Steps in program development
- = 25 boxes to be checked off!



Tom's one step workshop planner

Model good pedagogy

If the next question you ask yourself is,
“what does that mean?”

You are off to a flying start.



Good pedagogy for this PD workshop

- Learning outcomes match training needs and expectations of teachers
- Create an environment where learning is likely
- Exercise several learning strategies



Plant Propagation

- Introductory plant science
- Horticulture applications
- Enrolls majors, non-majors seeking liberal education elective, grad students
- Plants! Greenhouse!
- Large class of 150 per semester

Format comparison

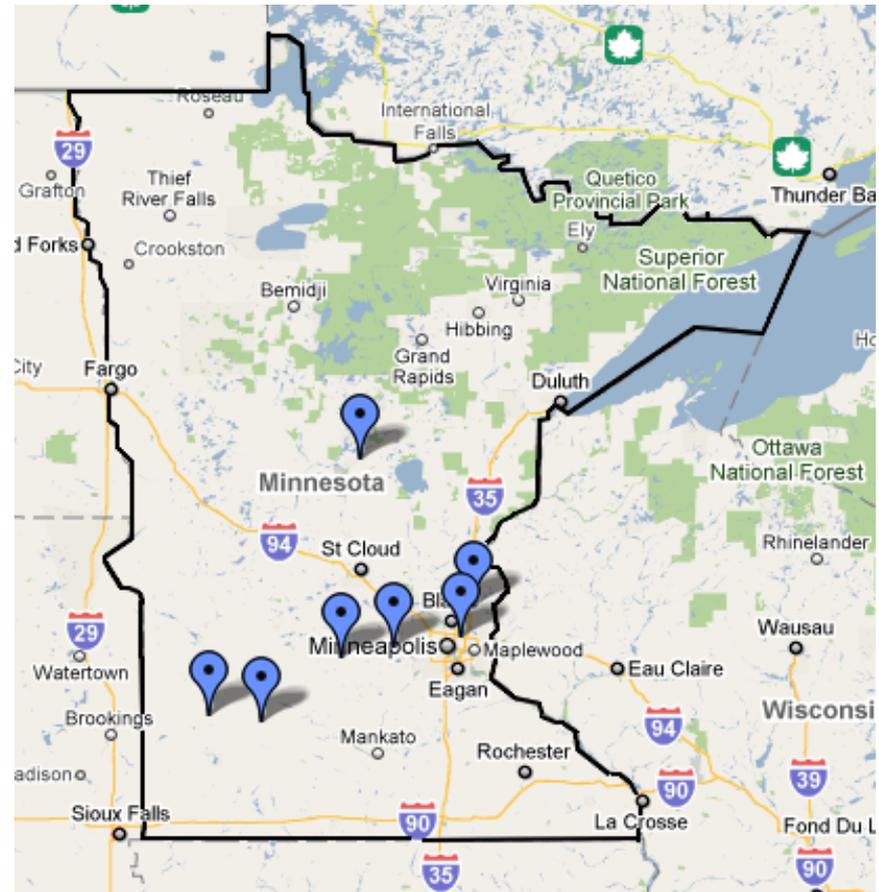


- Conventional format
 - Two face to face lectures
 - One face to face lab
- Hybrid format
 - One face to face lab
 - One face to face class meeting

- Two online lectures
- Audio companion
- “Seeing

Pilot offering

- All teachers new to this course
- All high schools rural but one
- Functional greenhouses, agriculture licensure
- Longest drive to workshop 4h
- Shortest drive 30m





Original workshop proposal

- Initial plan: 4-day workshop in St Paul
- Poll of teachers: do it in late June
- **But:** no 4-day window in June open for all teachers
- Can we schedule the workshop differently?



Revised proposal

- Teachers said they were more concerned about mastering the laboratory techniques than the lecture content.
 - Do that first?
- Two-day laboratory workshop in June
- Two-day lecture workshop later in summer



Final proposal

- A solution is obvious only after exhausting all others
- Four weekly asynchronous online sessions
- Two-day face to face workshop after completion of online component



Online: Flexibility and mastery

- Online component offered flexibility
 - Complete sessions asynchronously
 - Prepared for discussions in St. Paul
- Online component offered mastery
 - Immersed as learners in the same course format as will be available to their students

Moodle Workshop Delivery

Topic outline



St. Paul Workshop Reminder

June 23 & 24

8:30 am to 5:00 pm both days

Rm 140 Plant Growth Facility, St. Paul Campus

Welcome to the online component of the 2010 summer workshop for high school instructors of College in the Schools HORT 1001 Plant Propagation during the 2010-2011 academic year. If you have any questions about this site or other aspects of the workshop, don't hesitate to contact me using one of the options below.

Regards,

Tom Michaels
Professor, Horticultural Science
612-624-7711
michaels@umn.edu

 [News forum](#)

Section Links

1 2 3 4 5 6 7 8 9 10 11 12 13
14 15

People

 [Participants](#)

Calendar

October 2010

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Events Key

 Global  Course
 Group  User

Activities

 [Forums](#)
 [Resources](#)
 [Wikis](#)

Administration

 Turn editing on
 Settings
 Grades
 Assign roles
 Automatic Enrollment
 Groups
 Backup
 Restore
 Import
 Reset
 Reports
 Questions
 Files
 Unenrol me from Plant Prop

My Links

[My Profile](#)
[My Moodle](#)
[My Blog Entries](#)
[My Calendar](#)

Quick links for students

[Watch online orientation](#)
[User guides](#)
[Student support forums](#)
Email:
moodle@umn.edu



CIS Plant Propagation Instructor Workshop

May 26 - June 1, 2010

Week 1 - Course Information

[Here's the audio companion](#)

Learning Outcomes for the Week 1 Online Workshop

- Know the specific components of Hort 1001 Plant Propagation and how they work together to supporting student learning
- Know the general structure of the online lecture and ideas for how students could engage with these lectures
- Know the limitations of the online lecture format and ideas for how you could supplement these lectures to enhance the learning
- Know the content covered during the first three weeks of lecture

Structure of online lectures

- Statement of learning outcomes
- Feedback from previous session
- Explore one of the major components



CIS Plant Propagation Instructor Workshop

June 2-8, 2010

Week 2 - Digital image assignments and UThink blogs

[Here's the audio companion](#)

Feedback from Week 1

Before I launch into the material for Week 2 I'd like to revisit the subject of textbooks. In Week 1 you may have gotten a mixed message about textbooks because,

Up until this year for my on-campus course I've required Toogood's *Plant Propagation* in support of the lab component and Capori's *Botany for Gardeners* in support of the lecture. When you look at the lecture and lab schedules you will see reference to required reading in these books. That's changing, though. This fall for my on-campus course I'll be requiring *Plant Propagation* book. My students tell me that the online lectures I provide, and external online references linked in those lectures, duplicate the information in *Plant Propagation*. I won't be requiring *Botany for Gardeners*, although I'll suggest it to students who feel more comfortable with a text in-hand or who are really starting from square one.

Now what should we do in the CIS version of the course? I recommend that you have both these books in the classroom for reference. How many copies of each school budgets. Do you need one for every student, or could you have a set of maybe 3-5-10 of each available for students to consult during the school day? I think about this in June. In the meantime, I'd be very interested in what you think your students' textbook needs will be.

Learning Outcomes for the Week 2 Online Workshop

- Know the steps required for students to complete the weekly digital snapshot assignments
- Know yourself how to acquire a digital image, upload the image to our UThink blog site, and add a comment
- Develop options for how you can integrate the digital image assignments into the course format you will be establishing for this class in your high school
- Know the content covered during weeks 4-8 of the online lectures

Structure continued

- Audio companion
- Review seven of the 28 lectures
- Seeing Horticulture assignment



CIS Plant Propagation Instructor Workshop

June 23-14, 2010

St. Paul Workshop - Assembling the parts

Proposed St Paul workshop schedule

Wednesday		
8:30am - 8:45am	Julie Williams	CIS Welcome
8:45am - 11:00am	Bill Peters	Laboratory workshop I
11:00am - Noon	Tom Michaels	Fitting lecture components to your term
Noon - 1:00pm		Lunch on your own
1:00pm - 4:00 pm	Bill Peters	Laboratory workshop II
4:00pm - 5:00pm	Beth Adamek and Tom Michaels	Daily debriefing
Thursday		
8:30am - 11:00am	Bill Peters	Laboratory workshop III
11:00 - Noon	Tom Michaels	Computer lab - snapshots
Noon - 1:00pm		Lunch on your own
1:00pm - 2:00pm	Tom Michaels	Computer lab - lectures and audio
2:00pm - 4:00pm	Bill Peters	Laboratory workshop IV
4:00pm - 5:00pm	Beth Adamek and Tom Michaels	Daily debriefing and workshop evaluation

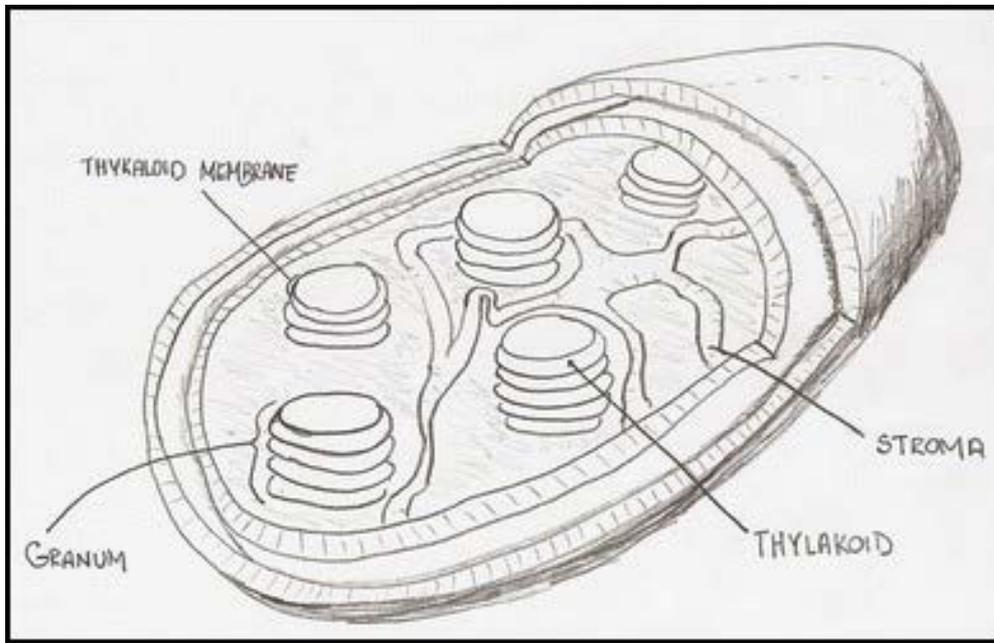
Face to Face Workshop

- Laboratory workshop I
- Lecture follow-up
- Lunch
- Laboratory workshop II
- Debriefing



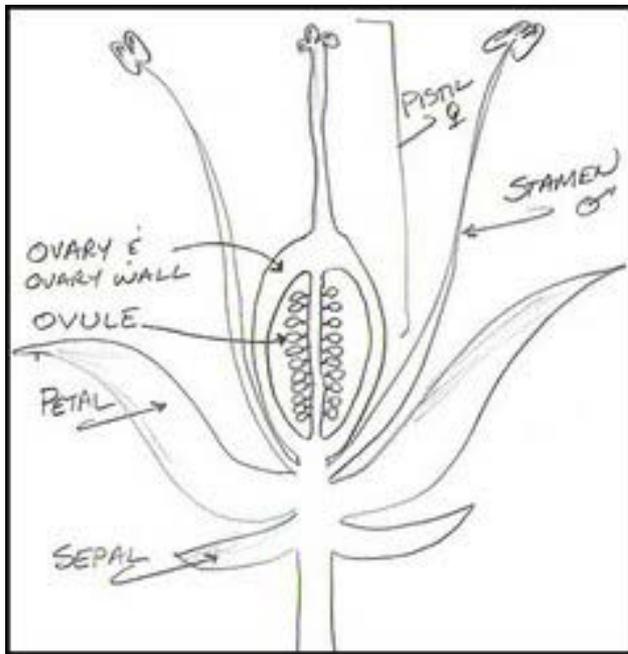
Teacher feedback: Timing

- Online component began too soon
- Online workload achievable within the 4 week schedule
- Some were playing catch up, but completed online component before start of St. Paul workshop



Teacher feedback: Online

- Provided excellent background and prepared them for the St. Paul workshop
- Face-to-face training helped reinforce the online material



Teacher feedback: Formats

- Workshop prepared teachers for both conventional and hybrid formats
- Grading and scoring information provided online and in St. Paul was useful
- Audio companion will be utilized



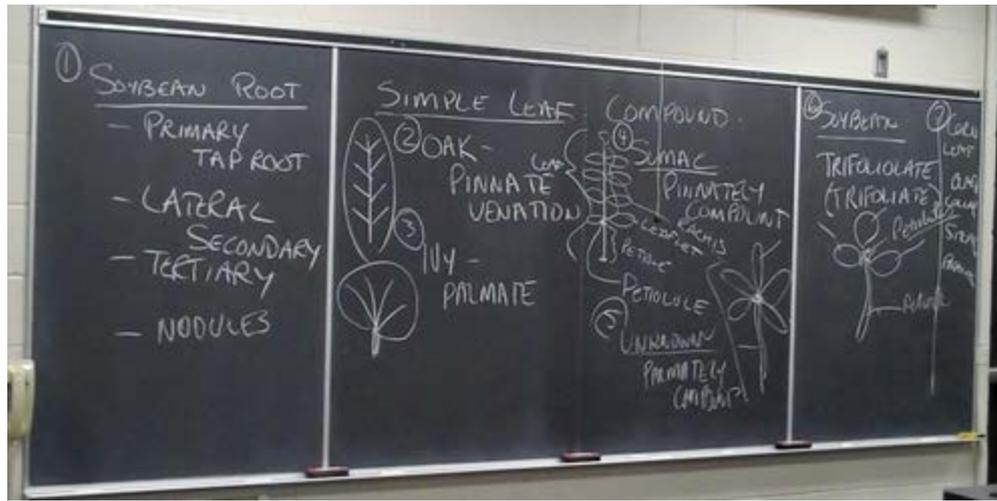
Teacher feedback: Labs

- Understood the labs
- St. Paul workshop provided hands-on experience to fill in their propagation skills gaps
- Ready to instruct labs in their classes



Teacher feedback: Drawings, Active Learning, Snapshots

- Class meeting illustrations and active learning exercise instructions received mixed reviews for clarity
- The snapshot assignments posed technical challenges
- Half need more practice with Moodle



October teacher follow-up

- Propagation chemicals kit
- Individual Moodle sites
- Teachers need to brainstorm on how to fit UofM labs into their class schedules
- Students LOVE the snapshot assignments
- Review session prior to exam



Conclusions

- Workshop format worked
 - St. Paul workshop was necessary
-
- Hybrid approach provided flexibility
 - Teachers experienced the hybrid format and several learning strategies
 - Illustrations, snapshots need clearer instruction