

Thermo Virtual Community of Practice (VCP)



Session 6: Instructional activities – Part 3: Having students work in teams

May 8, 2013

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Tentative Agenda



- Introductions, Objectives ~ 5 min
- Inquiry based activity demonstration (Margot) ~ 15 min
- Using teams in the active-learning course ~ 20 min
- Mid-course evaluation ~ 15 min
- Discussion of fall activities: goals, support & meetings ~ 10 min
- Wrap-up and next week ~ 5 min

Team Flow



Ganesh
Balasubramanian
Iowa State



Jeff LaMack
Milwaukee School
of Engineering



Melissa Pasquinelli
North Carolina State



Georg Pinggen
Union



Nastaran Hashemi
Iowa State

Team Energy



Nihad Dukhan
Detroit Mercy



Calvin Li
Villanova



Krishna Pakala
Boise State

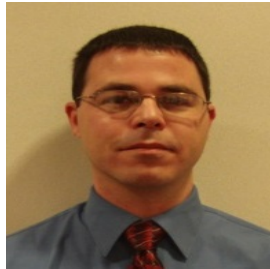


Hessam Taherian
Alabama at Birmingham



Robert F Richards
Washington State

Killer Watts



Jamie Canino
Trine



Heather Dillon
Portland



Edwin Wiggins
Webb Institute



Joseph Tipton
Evansville

Team Green Engineering



Margot Vigeant
Bucknell



John O'Connell
Virginia



Zihua Xu
Minnesota Duluth



Sapna Sarupina
Clemson

TdS



Sooby Bhattacharjee
San Diego State



Ashland Brown
Pacific



Betta Fisher
Cornell



H. S. Udaykumar
Iowa

Team Cycle



John Chen
California Polytechnic



Milo Koretsky
Oregon State



Sadi Carnot
École Polytechnique

Objectives

- Experience “inquiry based activities” as another active learning technique
- Introduce Cooperative Learning for team work
- Provide feedback to Milo and John about VCP
- Consider fall VCP activities

Inquiry Based Activities



- Carnot Engine Cycle:
http://www.facstaff.bucknell.edu/mvigeant/Thermo_JS/Carnot/Carnot-Engine.html
- Piston Cylinder Model:
http://www.facstaff.bucknell.edu/mvigeant/Thermo_JS/Piston/cycle-modeler.html
- Reversibility of Mixing:
http://www.facstaff.bucknell.edu/mvigeant/Thermo_JS/Mixing/Mixing.html
- Pump Reversibility:
http://www.facstaff.bucknell.edu/mvigeant/Thermo_JS/Pump_Reversibility_edit/pump-reversibility.html
- Cough Drop Dissolution (Steady State vs. Equilibrium):
http://www.facstaff.bucknell.edu/mvigeant/Thermo_JS/Steady_State/steadyState.html

Using Teams – Blog Review

jchen24@calpoly.edu [Home](#) > [Groups](#) > [Thermodynamics VCP](#)

Blog

Blog

Teams in Thermo Class **John OConnell**
3:08pm Fri May 3

I tend to minimize administratively forming teams or team building in thermodynamics classes. We do it in the first lab class following the ideas of Smith, Olds, Felder and Brent (J. Stud. Centered Learning, 2004), including the team building and monitoring activities they describe. That is the first time in our curriculum that a serious and long-term relationship with learning and grading consequences appears for students in a collection. This brings a set of real-life issues that can only be addressed in a projects course.

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Team Activities - VCP experiences (For Session 6) **milo.koretsky@o...**
10:42am Wed May 1

Hi Thermo VCPers!! For session 6, please add a comment with ONE hint for using teams in class or ONE thing you struggle with when you use team activities

[3 comments](#)

Using Teams – Cooperative Learning



- Most researched pedagogy in education – over 50 years of research
- CL can be used with various in- and out-of-class activities: e.g., project-based learning, design projects, jigsaw, homework assignments, group tests
- When implemented well, CL promotes many positive learning outcomes; instructor shifts role away from most learning activities

Using Teams – Cooperative Learning



- Five essential elements of CL:
 - ▣ Positive interdependence
 - ▣ Face-to-face interaction
 - ▣ Individual and group accountability
 - ▣ Group processing
 - ▣ Social and team skills

Mid-Course Evaluation

- Your turn to give us some formative feedback for how this VCP is working for YOU

Thoughts about Fall

- The intent is to continue in some form this fall
 - ▣ Is this time good? Alternatives?
 - ▣ What are your goals for the fall?
 - ▣ What other ways can we support one another in making changes?
 - ▣ How frequently should we should meet?

For Session 7: May 15, 2013

- Review the “Cooperative Learning – additional resources” handout developed by Karl Smith available in the week 7 folder: filename is “smith-formal-cl-additional_resources.pdf”
<https://aseevcp.asee.org/?q=thermovcp/node/384>
- Post your thoughts for our fall VCP meetings (based on previous slide) to our blog:
<https://aseevcp.asee.org/?q=thermovcp/node/554>
- Update your syllabus based on VCP this far with track changes – If you have any changes you wish to make
<https://aseevcp.asee.org/?q=thermovcp/node/384>