

Peer-Assisted Learning (PAL) Sessions at the University of Minnesota

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Enriching the Academic Experience of College Science Students

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UNIVERSITY OF MINNESOTA
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Chem 1011

	WH	BL	CL	AS	AI	UNK
C or higher	956	62	19	147	7	40
% within grade	77.7%	5.0%	1.5%	11.9%	0.6%	3.2%
% within ethnicity	79.1%	49.6%	76.0%	65.0%	77.8%	83.3%
C- or lower	217	43	6	65	1	7
% within grade	64.0%	12.7%	1.8%	19.2%	0.3%	2.1%
% within ethnicity	17.9%	34.4%	24.0%	28.8%	11.1%	14.6%
W	34	20	0	14	1	1
% within grade	48.6%	28.6%	0.0%	20.0%	1.4%	1.4%
% within ethnicity	2.8%	16.0%	0.0%	6.2%	11.1%	2.1%
I	2	0	0	0	0	0
% within grade	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% within ethnicity	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%



Chem 1021

	WH	BL	CL	AS	AI	UNK
C or higher	1262	59	16	215	4	58
% within grade	78.2%	3.7%	1.0%	13.3%	0.2%	3.6%
% within ethnicity	80.3%	56.7%	61.5%	72.9%	80.0%	71.6%
C- or lower	223	29	7	67	0	340
% within grade	33.5%	4.4%	1.1%	10.1%	0.0%	51.1%
% within ethnicity	14.2%	27.9%	26.9%	22.7%	0.0%	16.3%
W	84	15	3	13	1	9
% within grade	67.2%	12.0%	2.4%	10.4%	0.8%	7.2%
% within ethnicity	5.3%	14.4%	11.5%	4.4%	20.0%	11.1%
I	2	0	0	0	0	0
% within grade	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% within ethnicity	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%



Math 1051

	WH	BL	CL	AS	AI	UNK
C or higher	270	41	16	83	1	23
% within grade	62.2%	9.4%	3.7%	19.1%	0.2%	5.3%
% within ethnicity	70.9%	50.0%	76.2%	76.9%	12.5%	60.5%
C- or lower	75	23	4	17	6	8
% within grade	56.4%	17.3%	3.0%	12.8%	4.5%	6.0%
% within ethnicity	19.7%	28.0%	19.0%	15.7%	75.0%	21.1%
W	35	15	1	8	1	7
% within grade	52.2%	22.4%	1.5%	11.9%	1.5%	10.4%
% within ethnicity	9.2%	18.3%	4.8%	7.4%	12.5%	18.4%
I	1	3	0	0	0	0
% within grade	25.0%	75.0%	0.0%	0.0%	0.0%	0.0%
% within ethnicity	0.3%	3.7%	0.0%	0.0%	0.0%	0.0%




What is PAL?

The Peer-Assisted Learning groups are study review sessions for academically-rigorous courses. Each PAL session is guided by an experienced student working from the course syllabus. PAL sessions are held each week throughout the term.



What does effective problem solving look like in Chemistry?

  Read the problem individually.


  Answer the following questions in your group:

① What concept is the problem based upon?


② What mathematical, geometrical, or conceptual relationship exists between the information you know and the information you want to learn



What does effective problem solving look like in Chemistry?


 What information are you given, and what new information are you asked to produce?

 Restate the information in your own words

 Solve the problem individually.




What does effective problem solving look like in Chemistry?

 Check your answer with your group members. If there is disagreement, find out where you made different choices. Come to an agreement on the correct answer and method of problem solving.



What does effective problem solving look like in Chemistry?

- ☐  When you've come to an agreement, answer the following questions as a group:
 - 🕒 Revisit your answers to question 2, would you make any changes in these answers? If you would, specify the changes.





What does effective problem solving look like in Chemistry?

- ① Think of a use for the information contained in this problem.
- ② Look at the list of “Comprehensive Problems” at the end of the chapter. Which of these problems are related to this problem?





PAL Session Principles

-  PAL facilitator and participating students model “good student” behaviors that students adopt and adapt.
-  A blend of session activities are pre-planned by the PAL facilitator, with faculty input, and requested by student participants during the session.




PAL Session Principles


 Sessions in various academic content areas are different and based upon the academic requirements unique to the disciplines.


 PAL sessions integrate practice of learning strategies within review of the course material.



PAL Session Principles




 There is high emphasis on understanding the process of problem-solving.

 Respect for multiculturalism is demonstrated by the facilitator and students.

 Students are actively engaged with the course material and each other.



PAL Session Principles

-  Students are self-generating the answers to problems and course issues.
-  Power and responsibility is shared among the PAL facilitator and participating students.
-  Cooperative learning activities are used to foster a learning community.



PAL Case Study: Animal Science

Chem 1011/1015

	Median	Mode
Fall 2005	C	B
Fall 2006	C	A

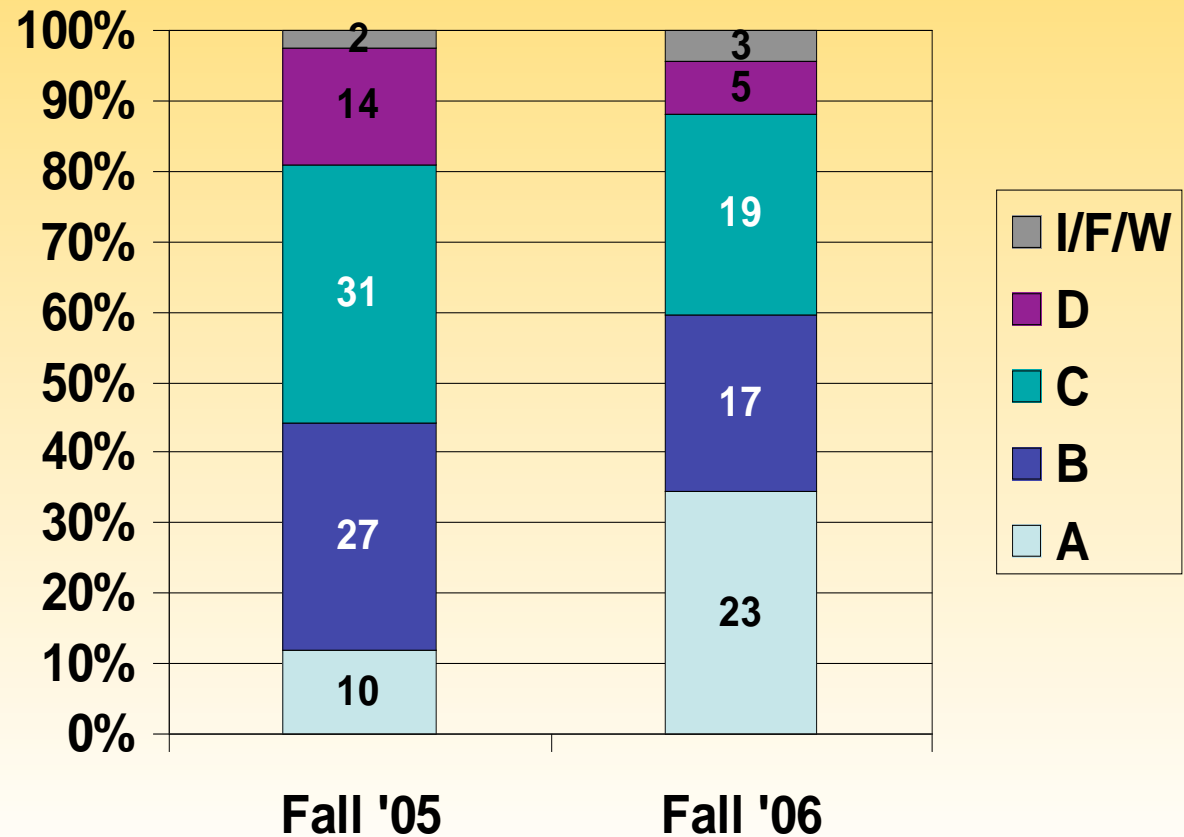
Chem 1021

	Median	Mode
Fall 2005	C+	B-
Fall 2006	B	A



PAL Case Study: Animal Science

Grades attained shown as a percentage of grades awarded



Lessons Learned

- Logistical support
 - Cap group size at 20
 - Web-based registration
- Strengthen integration with course and faculty relationships
 - Links to registration on syllabi and websites
 - Announcement in class
 - Enhance dialogue for materials and feedback

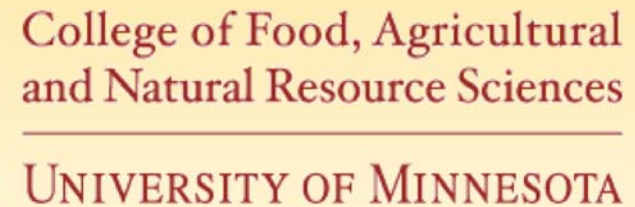


Future Directions

- Full-time coordinator
- More thorough formative and summative data reports
- CRLA certified training for facilitators



Partners



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