

MPS 4: Strategy timing sheets For an abbreviated 1½ h version see PBL: Resources to gain the most from PBL” pages B-16 or B-21 <<http://chemeng.mcmaster.ca/innov1.htm>> problem based learning.

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Topic	Trans- par- ency no.	Time, min	Elapsed time, min	Comment
1. Introduction	1	2	2	Use anteatr cartoon to introduce the unit if the participants have not previously seen it.
2. Where it fits in	2	0.5	2.5	Always include this type of overview to show the big picture
3. Pretest	3	0.50	3.	Unlike other pretests, here the participants can write in the strategy that they currently use
4. Objectives	3	3	6	Read over, or have one person at a time read these over. Do not expect comprehension at this time. Tell them this. Do not give excessive elaboration yourself.
5. Route ahead	4	1	7	
6. Example data	5	1.5	8.5	Show 5 and 6 simultaneously on the two overhead projectors
7. Example process	6			
8. Example strategy	7	3	11.5	Show 7 and 8 simultaneously on the two overhead projectors; you role play the talking and marker; then role play the listener recorder
9. Example listener evidence form	8			
10. Option selecting strategy: criteria	Opt 9	2		You can use any strategy you want. The key skills we are developing are being organized, systematic, having a strategy and monitoring. We don't want to get hung up arguing about the strategy. For example, for workshops with nurses, use the 4-step Nursing process of Assess, Plan, im0plement, evaluate. <i>However, for this activity, the talker and the listener must agree on the strategy. Furthermore, we have invested several years of research to develop the MPS 6-step. The purpose of this series of optional transparencies is to share that research and to get a buy-in for the strategy board in transparency #7</i>
11. Option research	Opt 10	1		
12. Option		2		you might display some of the 75+ published strategies
13. Option results	Opt 11	2		

14. Option importance of defining problems and what we do during the process	Opt 12	2		
15. Option visual reinforcement of three phases to <i>DEFINE THE PROBLEM</i>	Opt13	2	22.5	
16. Activity: boredom		3	25.5	If you used the options, then the 20 min attention span is exceeded. Include back rubs, handshakes, stretches, or “Turn to a neighbor &... discuss the strategy you use”
17. Seek agreement and understanding of terminology for the strategy board	Opt 14	1.5	13 27	
18. Leader explanation of activity and roles	Opt 15	1	14 28	An option would be to provide written description of roles and ask each to read the role. This should go quickly <i>if the participants have experienced the MPS 1 Awareness unit</i> . If they have not experienced it, then you need to spend more time.
19. Getting ready.	16	2	16 30	This is a paper shuffle. However, this needs to be done carefully so that each person retains evidence of his/her work.
20. Activity: pairs TAPPS	17	7-12	26 40	Flexible time here. 7 min minimum to 12 min. choose a time to match the breaks. You want to complete activity #23 before the break.
21. Reflection, discussion	18	3	29 43	
22. Activity: pairs TAPPS	19	7-12	39	Flexible time: choose the time to match breaks
23. Reflection, discussion	20	3	42	
USUAL end of a 50 min class				
24. <i>Research</i> Internal representation	21	1	1	Important concept; basis for the Explore stage
25 <i>Research</i> importance of the three stages to DEFINE THE PROBLEM	22	2	3	To some extent, this is a restatement of 14 and 15. However, since this was in the options, include it here even if you did the option. Here more detail is given.
26. <i>Research</i> Larkin’s data about reading the problem statement	23	1	4	

27. <i>Research</i> Schoenfeld's research about monitoring; table	24	2	6	
28. <i>Research</i> Schoenfeld; data	25	1	7	
29. So What? Activity with monitoring	26	1.5	8.5	Show transparencies together
30. Gathering evidence of monitoring	27	1.5	10	
31. Activity: TAPPS	28	7-12	20	repeat activity with subject discipline detective stories
32. Reflection	29	3	23	
33. Activity :TAPPS	30	7-12	33	repeat activity with subject discipline detective stories
34. Reflection	31	3	36	
35. Feedback from Schoenfeld's data	32	2	38	show simultaneously; the first few minutes in Schoenfeld's data shows "exercise solving"; then with extensive exploration, the problem solver is showing "problem solving"
36. Problem solving versus exercise solving	33	3	41	
37. Problem solving	34	3		Option depending on time: these are useful in that they show the relationship between exercise solving and problem solving; the relationship between textbook knowledge and knowledge structured for problem solving; and between experience and memorized solved problems
38. Exercise solving	35	3		Option depending on time
39. Reflection & discuss	36	3		Option depending on time
40. Posttest and objectives	37	4	45	MUST to close out unit
41. DISCOVERY	38	5	50	MUST to close out the unit
total			50	