## Cornell Notes - A Simple Yet Effective Review Method

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Do you ever find students do not review the assigned reading material, lectures, videos, etc. in advance of class? If you answered yes to this question, you are not alone. My experience is that many instructors struggle with how to conduct meaningful in-class discussions, activities, etc. when students do not come to class prepared. Because I utilize many approaches for actively engaging students in the learning process, both inside and outside the classroom, I have continuously been frustrated and puzzled about how to get student to prepare adequately for class sessions.

An approach I recently discovered has helped me to change this in the courses it teach, and I want to briefly share it with you in the hope that it can help you too. This approach is called Cornell Notes, and it is a simply yet effective method for students to review assigned materials and, in a sense, create their own study guides throughout a course. This method helps students learn to effectively take notes. It simply splits a regular size piece of paper into three separate sections where students take notes and summarize what they have been assigned to read or watch. This method appropriately puts the responsibility on the student to review assigned readings, videos, etc. It also helps them dig deeper and fully immerse themselves in the course content. In this case, students use writing as a way to learn by taking notes on key concepts from the items they have been assigned to read or watch.

For your reference, please see the example below regarding the operationalization of this approach. This example of the Cornell Notes method was generated by a recent student of mine for a module in one of my courses that teaches students how to document organizational processes using different types of process maps/flowcharts. While this example illustrates the electronic use of this method, it is also acceptable, and sometime preferred, to have students complete their Cornell Notes by hand.

CORNELL NOTES	Name: Class: TELS 4342 Topic: Module 3 notes
SHEET	Date: 2/15/2015
QUESTIONS	NOTES
Purpose of the Measure	<ul> <li>Map the process - work together in team to understand and analyze the</li> </ul>
Phase?	process - Establish the baseline - obtain data that helps to quantify the problem/process
What is a SIPOC Diagram?	<ul> <li>Essentially a high level flowchart - Suppliers, Inputs, Process, Outputs,</li> </ul>
what is a support Diagram?	Customars
	- Quick snapshot of elements in process
Different parts?	- 5 column format for each topic in SIPOC
-	- Only process steps are numbered
Best practices for SIPOC	-5 column format, 5-10 process steps listed (high level only), provide
	descriptions that address useful questions
	- Always start in center with Process, then move left and then right
What is a flow chart?	- flow chart depicts the steps in a process
	<ul> <li>improvement team uses flow chart to understand process flow</li> <li>generic tool: can be used for many things such as training aid or process</li> </ul>
	<ul> <li>generic tool: can be used for many things such as training aid or process analysis</li> </ul>
Anatomy of flow chart?	- starts/ends with ovals
	- boxes represent tasks and activities
	- arrows are process flows
	- diamonds are yes/no decisions (always two arrows come out)
Creating flowchart	<ol> <li>Define process - give the process a name at top of chart</li> </ol>
	<ol><li>Identify boundaries – the start and stop points</li></ol>
	<ol><li>Determine levels of detail - needs to be sufficient enough to understand</li></ol>
	process
	<ol> <li>Determine process steps - all activities and decision (use brief phrases</li> <li>Arrange steps - move post its around</li> </ol>
	<ol> <li>Arrange steps – move post its around</li> <li>Draw arrows –shows the flow</li> </ol>
	<ol> <li>Brite and a show and how</li> <li>Review flow chart - consistent level of detail, all steps correct</li> </ol>
Best practices for flow charts	- use well-known symbols; ovals, boxes, and diamonds
Den producer for non call it	- clearly identify start/end points
	- flow generally runs left to right and top to bottom; minimize crossing paths
	(generally familiar with left to right, top to bottom)
	- process described through brief statements, label yes/no decisions
	Swim lane diagram - separates processes based on people/jobs/departments;
	useful for Lean Six Sigma projects
	Use Visio to create the diagrams
Bringing them together?	<ul> <li>SIPOC across entire supply chain</li> <li>take high level processes from SIPOC and detail them in flow chart</li> </ul>
1	<ul> <li>take high level processes from SLPOC and detail them in now chart</li> <li>gives improvement team a good understanding of the process</li> </ul>
SUMMARY:	geter anyto tenter tent a good and tenten and of any proofer
During the measure phase of a Lean Six Sigma project, project members need to gather data in order to	
understand the process. SPIOC and Flow Chart diagrams are the two tools that help the project members	
achieve this better understanding. The SIPOC diagram is a high level chart of the entire supply chain that	
outlines the Suppliers, Inputs, Processes, Outputs, and Customers. Using the processes defined in the SPIOC	
diagram, the project members then create the flow chart. The flow chart is a detailed chart of the steps within	
the process.	

When I first started using this approach in my courses, I was not sure how students would react. Would they just view it as busy work? Would they actually do it? Would it help them? I made completing Cornell Notes a required assignment for each module in the course, and it was worth 5 percent of the

students' overall semester grade. I did not tell students there was a page requirement (such as 5 pages of Cornell notes per chapter in their textbook). But, I did share specific examples about what was expected, and if their Cornell Notes did not fulfill these expectations, they received a zero grade.

My results from having students use the Cornell Notes method has been fairly positive. For the most part, students understood the value of doing it, most (not all) consistently completed their Cornell Notes throughout the course, and several commented that it was in fact helpful to them. I also found that, like I had intended, students were better able to keep up with the course material and this enhanced our inclass discussions, activities, etc.

For more information regarding the Cornell Notes method, please see the following resources:

Description: http://coe.jmu.edu/learningtoolbox/cornellnotes.html

Instructions: http://lsc.cornell.edu/LSC\_Resources/cornellsystem.pdf

YouTube Video: https://www.youtube.com/watch?v=WtW9IyE04OQ