

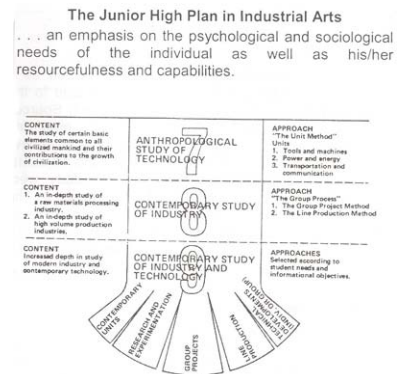
# The Maryland Plan....An Old Standard with a New Twist

G. Donald Wood, Jr.

I hate to admit it, but yes I have become a disciple of Maley. Dr. Donald Maley, that is, professor emeritus at the University of Maryland College Park who wrote The Maryland Plan. The Study of Industry and Technology in Junior High School. I hate to admit my evolution to disciple-hood because I know that for many of my knowledgeable colleagues, The Maryland Plan is considered highbrow, out of touch with reality, and impractical to teach. I think in the beginning of my teaching career I would have been inclined to concur. However, throughout the course of my teaching career, my opinion has evolved. I now view The Maryland Plan as a program that has a number of practical problems, but offers great promise, particularly in light of the new state and national standards, and should be examined with a renewed focus.

## What is The Maryland Plan?

The Maryland Plan was originally designed to teach students about industry – its organization, materials, occupations, processes and products. It also addressed the problems and benefits resulting from the technological and industrial nature of society. The elements as content structure of the program are graphically represented at the right.



## Highbrow and Out of Touch?

Yes, indeed The Maryland Plan is a bit high-brow. It has been popularly espoused by numerous academicians and supervisors in our field. However, in spite of its popularity among the various theoreticians, I would still ask the practitioners to consider the worthiness of the plan. Why? Because, practically speaking, technology is totally interwoven into human existence. Our ability to integrate our knowledge, tools, and skills to solve problems is far superior to all known creatures on the planet. So, from the standpoint of the reality of the human condition, there is, arguably, no more important subject to learn about and practitioners need to start teaching technology, not arts and crafts. The Maryland Plan may offer, at least in part, a solution to the problem of what to teach.

As a student in Dr. Maley's Practicum course, I joined other highly skilled and motivated college students in working through the intricacies of the plan in a hectic semester. However, I have yet to see the Plan be fully and successfully implemented in the intended junior high/middle school environment. But I suppose this is the main juncture where I diverge with all my fellow educators. First, to my professors, the idea behind the plan is right on the mark. I have seen no better plan from the standpoint of concept. But all the professors I know who have been knowledgeable about the Plan, simply refuse to recognize the problems inherent in its execution. Second, to my fellow practitioners, we must begin to look beyond the tips of our noses. There's a lot of junk out there, lots of bits and pieces, lots of shallow, incoherent and/or meaningless/brainless activities being taught out of ease and convenience, lots of packaged activities that teach little and lead

nowhere. We will become extinct unless we start to think a little deeper and work a little harder to develop meaningful programs. Like the sentiment echoed in President Kennedy's inaugural speech, I suggest that we choose to do something, not because it's easy, but because it's the right thing to do.

### **A Practitioner's Point of View**

In my initial study of The Maryland Plan's Anthropological Unit, three problems were identified: logistics, social impact, and evaluation. A study entitled The Anthropological Unit Approach for Teaching Technology Education and the Use of Rubrics for Evaluation (Wood, 2002) considered the use of rubrics as a practical solution to the problem of objectively assessing the numerous subjective elements of student work. Two questions were addressed: "What are rubrics?" and "How can rubrics be used to evaluate student participation in the anthropological unit?"

### **Research Methodology**

A descriptive-analytical procedure was selected as a method for studying rubrics. Information related to the topic of rubrics was systematically examined. Sources of information reviewed included books, magazine articles, journal articles, Internet web sites, an interview, and sample works of fellow colleagues and students. Answers to the questions listed in this study were derived through a process of inductive reasoning. The descriptive-analytical procedure of research was selected because it was the most direct, economical (in terms of time) and pertinent method available for answering the questions posed in this study.

### **Review of Literature**

In a quest to define rubrics and determine their worthiness as assessment tools for the anthropological unit, a number of articles and books were reviewed. Studies such as Using Rubrics for Assessment and Evaluation in Art by Mary Piscitello were found that testified to the education benefits of rubrics. Most notable among the literature reviewed was the Performance-Based Education Implementation Handbook by Rodney Custer. This handbook clearly explained the differences between traditional assessment techniques and authentic assessment techniques (to include rubrics.) It further went on to show how objective rubrics could be developed for most any subjective learning activity. Knowledge acquired from the reading formed the basis for the development of a set of evaluation rubrics for the anthropological unit. Examples of these rubrics follow this article.

### **Conclusion**

The anthropological unit in The Maryland Plan provides our field with a strong conceptual framework for learning about technology. The problem with the Plan dwells in its actual implementation. A number of practical problems such as logistical needs, background information, and evaluation methods need to be addressed. Rubrics may be used as an effective, practical tool for guiding and evaluating students participating in the

anthropological unit. A further study of the use of the rubrics developed in this study is needed to confirm their effectiveness. It is hoped, however, that the development and use of these rubrics will provide a solution to one of the problems of implementation and, in effect, provide a positive new twist to and old standard.

## References

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# SEMINAR LEADERSHIP RUBRIC

Name: \_\_\_\_\_

TASKS	SUPERIOR	ABOVE AVERAGE	AVERAGE	NEEDS IMPROVEMENT	INADEQUATE	SCORE
<b>1. PREPARE AND AGENDA</b>	<p><b>30 points</b></p> <p>-Typed agenda that includes the following items:</p> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Individual progress reports.</li> <li>3. Feature presentation. (subtopic presentation(s))</li> <li>4. Group reaction (involvement of many students in the discussion is highly desirable.)</li> <li>5. The problems of the group.</li> <li>6. Topics of interest</li> <li>7. Closing Comments. (from visitors, teacher, and/or student leader.)</li> </ol> <p>-Made copies of agenda for everyone present to include teacher and visitors.</p>	<p><b>25 points</b></p> <p>-Typed agenda that includes the following items:</p> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Individual progress reports.</li> <li>3. Feature presentation. (subtopic presentation(s))</li> <li>4. Group reaction (involvement of many students in the discussion is highly desirable.)</li> <li>5. The problems of the group.</li> <li>6. Topics of interest</li> <li>7. Closing Comments. (from visitors, teacher, and/or student leader.)</li> </ol>	<p><b>20 Points</b></p> <p>Hand written agenda that includes the following items:</p> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Individual progress reports.</li> <li>3. Feature presentation. (subtopic presentation(s))</li> <li>4. Group reaction (involvement of many students in the discussion is highly desirable.)</li> <li>5. The problems of the group.</li> <li>6. Topics of interest</li> <li>7. Closing Comments. (from visitors, teacher, and/or student leader.)</li> </ol> <p>-Made copies of agenda for everyone present to include teacher and visitors.</p>	<p><b>18 points</b></p> <p>Hand written agenda that includes the following items:</p> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Individual progress reports.</li> <li>3. Feature presentation. (subtopic presentation(s))</li> <li>4. Group reaction (involvement of many students in the discussion is highly desirable.)</li> <li>5. The problems of the group.</li> <li>6. Topics of interest</li> <li>7. Closing Comments. (from visitors, teacher, and/or student leader.)</li> </ol>	<p><b>0 points</b></p> <p>-Agenda was no created</p>	
<b>2. SET UP CLASSROOM</b>	<p><b>30 points</b></p> <p>-Leader checks the physical needs of the room prior to the seminar.</p> <p>-Leader arranges <b>all</b> furniture as required before and after the seminar.</p>	<p><b>25 points</b></p> <p>-Leader checks the physical needs of the room prior to the seminar.</p> <p>-Leader arranges <b>most</b> furniture as required before and after the seminar.</p>	<p><b>20 points</b></p> <p>-Leader checks some of the physical needs of the room at the start of the class.</p>	<p><b>25 points</b></p> <p>-Leader checks the physical needs of the room after much prompting from the instructor.</p>	<p><b>0 points</b></p> <p>-Physical needs of the room are not considered.</p>	
<b>3. CONDUCT SEMINAR</b>	<p><b>40 points</b></p> <p>-Leader assumes charge and controls all movement and direction with out instructor involvement (to include welcoming all students and visitors).</p> <p>-Leader moves seminar along with strong student involvement.</p> <p>-Leader covers all agenda items.</p>	<p><b>35 points</b></p> <p>-Leader assumes charge and controls all movement and direction with a little instructor involvement (to include welcoming all students and visitors).</p> <p>-Leader moves seminar along with strong student involvement.</p> <p>-Leader covers all agenda items.</p>	<p><b>30 points</b></p> <p>-Leader assumes charge and controls all movement and direction with moderate instructor involvement (to include welcoming all students and visitors).</p> <p>-Leader moves seminar along with some student involvement.</p> <p>-Leader covers most agenda items.</p>	<p><b>25 points</b></p> <p>-Leader assumes charge and controls all movement and direction with a lot of instructor involvement.</p> <p>-Leader stimulates low positive student involvement.</p>	<p><b>0 points</b></p> <p>-Leaser does not conduct the seminar.</p>	
<b>EXTRA CREDIT: REFRESHMENTS</b>	<p><b>10 points</b></p> <p>-Supplied food and drinks.</p> <p>-Supplied sufficient plates, napkins, and eating utensils.</p>	<p><b>7 points</b></p> <p>-Supplied food and drinks.</p> <p>-Supplied some plates, napkins, and eating utensils.</p>	<p><b>5 points</b></p> <p>-Supplied food or drinks.</p> <p>-Supplied some plates, napkins, and eating utensils.</p>	<p><b>3 points</b></p> <p>-Supplied food or drinks.</p>	<p><b>0 points</b></p> <p>-No refreshments provided.</p>	
					<b>TOTAL</b>	
					<b>GRADE</b>	

# MODEL EVALUATION RUBRIC

Name (s): \_\_\_\_\_

\_\_\_\_\_

CRITERIA	SUPERIOR	ABOVE AVERAGE	AVERAGE	NEEDS IMPROVEMENT	INADEQUATE	SCORE
<b>1. AUTHENTICITY</b>	<b>40 points</b> -All parts are proportionally accurate. -High level of detail.	<b>35 points</b> -All parts are proportionally accurate. -Adequate level of detail.	<b>30 points</b> -Most parts are proportionally accurate.	<b>20 points</b> -Authenticity was attempted but not reached.	<b>0 points</b> -Authenticity was not attempted.	
<b>2. CONSTRUCTION</b>	<b>40 points</b> -All parts are neatly and accurately cut and assembled in a sturdy manner. -High level of craftsmanship.	<b>35 points</b> -Most parts are neatly produced and neatly/strongly assembled. -High level of craftsmanship.	<b>30 points</b> -Model is complete. -Average level of craftsmanship.	<b>20 points</b> -A good attempt was made at constructing the model.	<b>0 points</b> A poor attempt was made at model construction.	
<b>3. FINISH</b>	<b>10 points</b> -Color and texture of finish look exactly like the original invention. -Finish is neatly applied over all surfaces.	<b>8 points</b> -Color and texture of finish look similar to the original invention. -Finish is neatly applied over all surfaces.	<b>6 points</b> -Color and texture of finish look exactly like the original invention. -Finish is poorly applied over all surfaces.	<b>4 points</b> -Color and texture of finish is not similar to the original invention. -Finish is poorly applied over all surfaces.	<b>0 points</b> -No finish was applied.	
<b>4. DISPLAY OR EXHIBIT</b>	<b>10 points</b> -Model is displayed on a well-crafted base or stand. -Name of model is neatly typed and attached to the base.	<b>8 points</b> -Model is displayed on a well-crafted base or stand.	<b>6 points</b> -Model is displayed on a base or stand.	<b>4 points</b> -Model is neatly labeled.	<b>0 points</b> -No base is created or base/label distracts from model.	
<b>EXTRA CREDIT – DOES IT WORK</b>	<b>10 points</b> -Model is fully functional	<b>8 points</b> Model exhibits a high level of function.	<b>6 points</b> -Model exhibits a moderate level of function.	<b>4 points</b> -Part of model works.	<b>0 points</b> -Model does not work.	
<b>TOTAL</b>						
<b>GRADE</b>						

## PARTICIPATION EVALUATION RUBRIC

Names (s): \_\_\_\_\_

\_\_\_\_\_

CRITERIA	SUPERIOR	ABOVE AVERAGE	AVERAGE	NEEDS IMPROVEMENT	INADEQUATE	SCORE
<b>1. SAFETY</b>	<b>10 points</b> -Student always follows all safety rules without teacher prompting. -Student actively promotes safety in the lab.	<b>8 points</b> -Student always follows all safety rules without teacher prompting.	<b>6 points</b> -Student always follows most safety rules without teacher prompting.	<b>4 points</b> -Student follows all safety rules with prompting from teacher.	<b>0 points</b> -Student is generally unsafe or does not follow safety rules.	
<b>2. SEMINAR PREPARATION.</b>	<b>40 points</b> -Student always cleans desk, places research materials and model on desk without teacher prompting. -Student helps others when asked for assistance.	<b>35 points</b> -Student usually cleans desk, places research materials and model on desk without teacher prompting. -Student helps others when asked for assistance.	<b>30 points</b> -Student usually cleans desk, places research materials and model on desk when asked.	<b>20 points</b> -Student usually cleans desk, places research materials and model on desk when repeatedly asked.	<b>0 points</b> -Student is disruptive or does not participate.	
<b>3. SEMINAR PARTICIPATION</b>	<b>40 points</b> -Student actively challenges, debates, questions and comments in a good natured positive manner.	<b>35 points</b> -Good involvement. -One non topic conversation.	<b>30 points</b> -Moderate involvement. -A few not topic conversations.	<b>20 points</b> -Low involvement and/or poor comments or non-topic conversations.	<b>0 points</b> -Student is generally disruptive or does not participate.	
<b>4. CLEAN-UP</b>	<b>40 points</b> -Student earns a 90% grade or better on clean-up tasks.	<b>35 points</b> -Student earns a clean-up score between 80% and 89.5%.	<b>30 points</b> -Student earns a clean-up score between 70% and 79.5%.	<b>20 points</b> -Student earns a clean-up score between 60% and 69.5%.	<b>0 points</b> -Student earns a clean-up score between 0% and 59.5%.	
<b>TOTAL</b>						
<b>GRADE</b>						