

## Utilizing Bloom's Taxonomy in Your Classroom

Helpful Hints Series #11

from Dr. Barry Ziff

“One of the beauties of teaching is that there is no limit to one’s growth as a teacher, just as there is no knowing beforehand how much your students can learn.”

Herbert Kohl

From the moment we begin teaching creative teachers are seeking to find more useful and meaningful strategies to engage students in learning. There are many valuable and sound strategies and models to choose from. In fact, many school districts provide in-service training opportunities to train all teachers to utilize a specific strategy or model of instruction in order to provide consistency throughout the school district.

A model that I always found useful, especially in an inclusive setting, was Bloom’s Taxonomy of Educational Objectives. Developed by Benjamin Bloom in the 1950s the model provides a structure that allows teachers to present a lesson to a group of students who have varied needs and abilities. This model supports the need to *differentiate* the curriculum so all students are able to participate in the same content area during a lesson. The structure allows the teacher to accommodate a variety of students’ needs by applying the appropriate questions and activities for children so that they may equally participate in the lesson.

For example, if the class is studying domesticated animals as part of a science unit, the teacher can develop activities at each level of Bloom’s Taxonomy to involve students related to their assessed needs and abilities. The model allows a lower functioning student to respond to one group of questions and activities, while higher functioning students are responding to another set of questions and activities which are all related to the same topic of study.

### Structure of Bloom’s Taxonomy

The educational objectives are structured in a hierarchical order. At the lowest level students are required to know, memorize, repeat and list information. At the higher levels students are required to judge, criticize, resolve, invent, and make recommendations. Each of the levels builds in complexity from the previous level. *Verbs* are used to involve students in thinking differently at each level. Verbs are identified below to clarify this point in understanding the function of the hierarchical way of thinking involving students in this process.

Level I: Knowledge (knowing isolated information)

Know	list	recall	repeat	record
Define	locate	memorize	restate	identify

Level II: Comprehension (understanding/making connections)

Discuss	describe	explain	match	find
Reword	review	translate	express	report

Level III: Application (using the knowledge in a variety of ways)

Display	simulate	apply	demonstrate	practice
Operate	compute	present	sketch	use

Level IV: Analysis (comparing and contrasting information)

Analyze	compare	contrast	probe	inquire
Investigate	classify	organize	examine	dissect

Level V: Synthesis (developing new information)

Compose	invent	develop	construct	create
Hypothesize	predict	speculate	role-play	generalize

Level VI: Evaluation (expressing personal values)

Judge	infer	evaluate	advise	
Conclude	consider	determine	recommend	

When the teacher uses these verbs in the structure of a question regarding the content area it automatically involves the student thinking at that level in which the verb word appears. Therefore, if we ask a student to “invent” something we are asking them to perform at the synthesis level of thinking. By asking a student to probe or inquire the teacher is requiring the student to think at the analysis level.

### Utilizing Bloom’s Taxonomy

The teacher must plan a lesson, which includes a variety of activities and questions, forcing the students to think and function at each level of the taxonomy. This is the teacher’s opportunity to be creative. The teacher prepares questions and activities related to all levels of the taxonomy directly related to the content of study. Below is an example of some questions and activities related to the study of domesticated animals utilizing the Bloom’s Taxonomy methodology. Notice the use of the verbs in each question.

#### Domesticated Animals

##### Level I and II: Knowledge/Comprehension

1. Locate and list the animals that live on your block.
2. Identify the different breeds of dogs in your neighborhood.
3. Observe a dog while it is at play and rest. Explain how different dogs sit and lay.

##### Level III: Application

1. Teach your dog a new trick.
2. Interview people who own pets. Make a survey of people who own pets in your neighborhood.
3. Construct a mobile or draw a collage about dog care and grooming.

##### Level IV: Analysis

1. Compare and contrast the physical and social characteristics of dogs and cats.
2. Develop a survey comparing and contrasting the different types of foods available for dogs or cats.
3. Make a chart comparing the anatomy of dogs and cats.

#### Level V: Synthesis

1. Develop a cartoon based on the relationship between an animal and a child.
2. Invent a toy or machine that would help dogs or cats live a healthier and happier life.
3. Create a TV game show about domesticated animals.

#### Level VI: Evaluation

1. Lead a panel discussion on the values of pets.
2. Write an editorial about the advantages and disadvantages of having a pet animal..
3. Have a dog and cat show. Present winner awards and ribbons.

### Star Wars Lesson

Knowledge: Define what is evil about Darth Vader. Write an original song to describe your feelings.

Comprehension: Identify each character as good or evil and describe the qualities as they relate to popular characters on a TV series.

Application: Write a travel log for the places Luke visited in his galaxy.

Analysis: Compare bee drones to the storm troopers and prepare an oral presentation to explain your findings.

Synthesis: Develop a game, which has as its theme, "good vs. evil".

Evaluation: Explain what the expression, "May the force be with you" means to you.

As a teacher, you are only limited by your imagination as to the activities you suggest your students complete. You do, however, still need to teach and provide information so the students can complete these tasks. Students can be grouped according to need or ability so the teacher can provide prerequisites skills and knowledge. See, *Developing Strategies that Encourage Hands-on Learning* for clarification on grouping students for effective learning.

Students can be involved in creating a variety of products to show their understanding and level of expertise in the content area. A variety of products are shared below, however, the teacher needs to adapt the products to the skill level and ability of their students.

Diary	graph	flip book	collection
Survey	letter	puzzle	questionnaire
Models	diagram	invention	TV commercial
Diorama	chart	game	map
Story	timeline	scrapbook	poem
Mobile	song	speech	poster
Puppet show	pamphlet	painting	travelogue
Construct game	teach lesson	debate	sell product
News article	TV game show	bumper stickers	
Timeline	crossword puzzle	word search	

Other possibilities: Think in terms of utilizing a variety of senses to produce final products and to instruct students.

<u>Visual</u>	<u>Auditory</u>	<u>Kinesthetic</u>
Matching games	music	role-play
Puzzles	rhymes	pantomime
Overheads/power point	read aloud	dramatics
Pictures	tapes	tracing
Flash cards	debates	dictionary
Sight words	documentary	essay
Flow charts	jingle	journal entry

Obviously it takes a great deal of time and effort on the part of the teacher to organize and implement this strategy. However, once you are comfortable using different levels of activities and questioning I think you will find the time well spent. Your job will be more interesting and exciting. The students will respond in a

favorable fashion and you will have less discipline issues because students are totally engaged in the learning process. It does take time to collect materials and have the resources available to involve the students. Begin the process with one content or subject area. Once you feel more confident utilizing Bloom's Taxonomy with your students you may use the strategy in other subject areas. Develop and post a chart in your classroom so that you can refer to the taxonomy verbs as you teach a lesson. I hope you will give this strategy a try in your class. I guarantee that your students will be happy and successful. Good luck!

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