



Activities for Creative Thinking & Problem Solving

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Attribute Listing

What is Attribute Listing? It is a technique for generating new ideas. It is also considered to be a theory of the creative process.

When to use it: Use Attribute Listing when you have a situation that can be decomposed into attributes, or characteristics.

EXAMPLE: Create a new soda container. Start by thinking of some different attributes of soda containers you would find at the store. (Can you think of more)?

SHAPE	MATERIAL	LOGO	COLORS	ARTWORK
Cylindrical	Clear Plastic	Pepsi	Clear	Circle
Bottle	Tinted Plastic	Coke	Green	Wavy Lines
Skinny	Aluminum	Sprite	Brown	Dots
Fat	Styrofoam	Mountain Dew	White	Font sizes
Tall	Cardboard	Barq's Root Beer	Red	Font Colors
Short	Glass		Blue	Seasonal Designs
				Pictures
				Font

There are two types of Attribute Listing

1.) Attribute Modifying-Listing the main attributes of a problem or of an object then thinking of ideas for improving each attribute.

EXAMPLE: Using the soda container example above, it might look like this:

Attribute:	#1 Cylindrical Can	#2 Artwork
Changes	Cone with the top cut off	Movable (like on hologram cards)
	Pouch (like a juice pouch)	Hyper color (changes color with temperature)
	Reusable aluminum cup – refills at the soda fountain.	More frequent changes with seasonal designs: Every holiday, seasons showing different activities (winter-snowboarding, spring-riding a bike), etc.

2.) Attribute Transfer- This is another name for analogical thinking. (We will talk more about analogical thinking later on in the year). Attribute Transfer is when you borrow attributes or ideas from another place.

EXAMPLE: artists, cartoonists, composers, and writers borrow ideas from many different places such as movies, television commercials, the Bible, children's stories, and the headlines to name a few. When using attribute transfer ask questions like:

"What else is like this?"

"What have others done?"

"Where can I find an idea?"

"What ideas can I modify to fit my problem?"

For more examples visit:

http://www.winstonbrill.com/bril001/html/article_index/articles/1-50/article6_body.html

Morphological Synthesis

Morphological Synthesis- This is an extension of attribute modifying where idea combinations are made by taking changes in two different attributes and setting them up into a grid. One attribute list goes on the horizontal axis, while the other goes on the vertical axis. Look where the ideas intersect to see your new idea!

EXAMPLE: An artist brings together two attributes of artwork (materials and canvas) to come up with a new way to create art. The listing(s) in the grid where the two intersect are the new ideas for the artist to use.

Materials	Canvas			
	Paper	Wall	Window	Wood
Ink	Japanese style Blotting paper	Graffiti	Painted glass	Marquetry Bleed rates
Oil		Murals	Motor oil floating in glass tank	
Dye	Appliqué with dyed strips		Stained glass	
Clay		Applied directly over brickwork		Wood and clay sculptures
Leaves	Glued then painted over	Blown onto glued wall	Translucent colored leaves	

*From www.creativeminds.org

Here are some activities for you to try!

Attribute Listing:

1.) Create a new breakfast cereal by thinking of different shapes, flavors, colors and sizes. Be imaginative!

SHAPES	FLAVORS	COLORS	SIZES

2.) List the attributes then think of new ideas to modify each attribute.

- ❖ A doorbell
- ❖ A bicycle basket
- ❖ A band-Aid
- ❖ A piece of sandpaper
- ❖ A paperweight
- ❖ A rose
- ❖ An umbrella
- ❖ A potholder
- ❖ A cocker spaniel

3.) Can you think of more?

*Activities taken from *Creativity is Forever*, p. 187.

Attribute Transferring

1.) Change the lyrics of the song Happy Birthday to something else. For ideas, think of geographical places, food, TV shows, or characters in a book. Be creative! The ideas are endless and remember, it is okay to be silly!

For example, here is a song to the tune of “Take Me Out to the Ballgame” that has been changed. It is from the book *Take Me Out of the Bathtub and other Silly Dilly Songs*.

'TAKE ME OUT OF THE BATHTUB'

Take me out of the bathtub
Take me out of the suds.
I've been here soaking since half past two
I feel so sudsy and wrinkl-y too.
Oh, I washed all over my body
My head my toes, in between
I used one, two, three bars of soap
Take me out.....I'm clean!

Take me out of the bathtub
I'm stuck here with my toys.
Dumptrucks and squirters I think are great,
But I better take off my ro-o-ler skates.
'Cause each time I get up I wob-ble
I hold on, but it is a pain...
I tried once, twice, three times to stand
Better get a crane!

*You may want to look at a copy of *Take Me Out of the Bathtub and other Silly Dilly Songs* by Alan Katz and David Catrow.

2.) Now try changing the words to any song of your choice.

3.) Be an artist, writer, songwriter, etc. and change something in the same way that you just did with the songs.

Morphological Synthesis:

1.) Make a creative sandwich. Be as silly or gross as you want!

	Celery	Applesauce	Cucumbers	Peppers	Tomatoes	Raisins	Nuts	Dates	Bananas	Cottage Cheese	Cranberry Sauce
Liver Sausage											
Egg Salad											
Chicken											
Tuna Fish											
Peanut Butter											
Jelly											
Sardines											
Deviled Ham											
Corned Beef											
Salmon											
Cheese											

2.) Now, make another grid and synthesize something else.

Have Fun Being Creative!!!

Mrs. Anderson



October	...	Idea Lists and Stimulators
November/December:	...	Brainstorming
January	...	Creative Dramatics
February	...	Lateral Thinking and Six Thinking Hats
March	...	Analogical Thinking
April	...	Creative Writing
May	...	Additional Techniques & Creative Activities over Summer Break

Bibliography of resources

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