pdes 2701/5701

Play
humor
improvisation
assignment 1

create a new cookie
creative in flavor, form, texture and/or etc

martha stewart's cookies
How do you grade creativity?

**assignment 1**

be creative while doing the assignment but not creative with the rules of the assignment (we are trying to teach you a process)

half points will be given for partially complete sections

one point for outline and timeline submission

| Summary | 1 = A short introductory summary statement about your process and this experience  
0 = No statement |
|----------|---------------------------------------------------------------------|
| Final Idea | 1 = Clear explanation of final idea with the name of the cookie, a note on why you feel it is creative, and a well photographed image of the cookie,  
0 = No documentation of final idea, missing final image, or description |
| Recipe | 1 = A concise recipe with quantities of ingredients and instructions  
0 = No documentation of recipe |
| Idea Generation | 1 = Documentation of idea generation process: a short statement on your idea generation process including your inspirations and which ideas you decided to test, and a listing of different ideas (at least 10) as an image or images from your notebook.  
0 = No record of idea generation. |
| Idea 1 Test | 1 = Documentation of testing one direction with clear photographs, a textual description of your evaluation of this idea and what you learned.  
0 = Did not document testing an idea |
| Idea 2 Test | 1 = Documentation of testing a very different idea with clear photographs, a textual description of your evaluation and what you learned. You are welcome to and encouraged to test more than two concepts.  
0 = Did not document testing a second idea |
| Iteration | 1 = Documentation of improving a specific idea through iteration, manipulation, and/or modification. This should include clear photographs of the changes and a textual description of the process and evaluation.  
0 = Did not document iteration |

**Peer Evaluated Creativity**  
Scaled out of 1 (in class)

**Peer Evaluated Taste**  
Scaled out of 1 (in class)
assignment 1

create a new cookie
creative in flavor, form, texture and/or etc
some great photos
assignment 1
create a new cookie
final cookie
assignment 1
create a new cookie
idea generation
assignment 1
create a new cookie
testing ideas
assignment 1
create a new cookie
iteration
assignment 1
create a new cookie
photo presentation suggestions

lighting
cropping
blurry
thumbs
orientation
people like incremental innovation
Lineas Meyer-Grimberg
Banana Cinnamon Slice

Thomas Patton
Strawberry Lemonade Cookie
Which are the most Innovative (Novel + Valuable + Feasible or Creative + Tasty + Marketable)?

Jacqueline Laliberte
Root beer Fizz

Kiana Koepp
Taco Not-O

Megan Sugaste
Chocolate Taco Cookies

Kelsey Sievert
Strawberry Cookies & Creme Sushi
evaluating creativity
rainbow project (cartoon caption test)
evaluating creativity
quantity vs. quality

The best way to have a good idea is to have a lot of ideas.  
-Linus Pauling

You're fired in 3...2...1...

quantity of captions vs. total humor score per subject

\[ R^2 = .64 \]

total number of cartoon captions

kudrowitz and wallace, 2010
evaluating creativity
advice from New Yorker winners Larry Wood and Patrick House

Keep it brief /common simple monosyllabic words  (i.e. keep it simple)

Theory of Mind  (i.e. what are the subjects thinking and feeling)

Incorporate everything in the cartoon

No proper nouns and no uncommon references

Most important but not mentioned...
Resolve the Incongruity!
Evaluating creativity

Formula for funny?

Ways to say “you’re fired”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Incongruity Not Resolved</th>
<th>Not Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td>You’re fired in 3...2...1...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think we all saw this coming, you’re being fired. Into space.</td>
<td></td>
<td>not simple</td>
</tr>
<tr>
<td>You’re fired!</td>
<td></td>
<td>incongruity not resolved</td>
</tr>
<tr>
<td>Boss: You are fired Employee: ... (good thing I can hardly hear anything in this helmet)</td>
<td>incongruity not resolved</td>
<td>not simple</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incongruity Not Resolved</th>
<th>Not Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.28</td>
</tr>
<tr>
<td>0.56</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Argument against the “elaboration” factor on TTCT
humor and creativity

“the person who is spontaneously humorous is, by the same token, spontaneously creative.”
~ J.D. Goodchilds

humor
the ability to perceive in an ingeniously humorous manner the relationship between seemingly incongruous things (morris, 1976)

creativity
forming of associative elements into new combinations which either meet specified requirements or are in some way useful (mednick, 1962)
humor and creativity

Humor can be dissected, as a frog can, but the thing dies in the process and the innards are discouraging to any but the pure scientific mind. –E.B. White

**Incongruity Theory**

**Superiority Theory**

preferred by left brain dominant - Shammi and Stuss, 1999

**Release Theory**
Where does the general keep his armies?

In his sleevies.

“armies” has two meanings

In an army base.

What are sleevies?

Puzzlement confusion

Where does the general keep his armies?

In an army base.

In his sleevies.

“armies” has two meanings

What are sleevies?

Puzzlement confusion
associative thinking
meta-metaphorical thinking, symphony

“connecting two different universes of meaning through some similarity the two share” (von Oech)

“to see relationships between seemingly unrelated fields and to invent something new by combining elements nobody else thought to pair” (Pink)

making complex ideas easier to understand

head  hammer head  hammer head shark  horseless carriage
AND NOW! for the THEME of 2016
Health & Wellbeing

note: this would be applied to the next 6 assignments
associative tools
mind maps - Tony Buzan, 1970s
group mind maps
exploring a realm
no ideas yet... just a map of the space
associative tools
association maps

Form
Round
Flat
1-10 cm dia
associative tools
association maps
associative tools
association maps

Biopsy Needle ➔ long thin tube ➔ Finger Trap

figueredo, fienup, kudrowitz, wronski, slocum, brugge 2006
sometimes the most powerful ideas come from simply combining two existing ideas nobody else ever thought to unite. most inventions and breakthroughs come from reassembling existing ideas in new ways. - pink

“Reese’s Peanut Butter Cup Theory of Innovation”
**associative tools**

**crossing products**

Gutenberg’s genius = borrowing a mature technology from an entirely different field, and putting it to work to solve an unrelated problem...

exaptation
associative tools

crossing products

"the enscribe" whiteboard table
associative tools

crossing products
associative tools

crossing products

- pencil
- toothbrush
- vacuum
- flower pot
Write down the name of three health/wellbeing related products

Exchange

take out notebook
humor and creativity

You're fired in 3...2...1...

quantity of captions vs. total humor score per subject

$R^2 = .64$

total number of cartoon captions

kudrowitz and wallace, 2010
humor and creativity

quantity of ideas vs. creativity of ideas per subject

\[ R^2 = .82 \]

quantity of captions vs. total humor score per subject

\[ R^2 = .64 \]
humor and creativity

quantity of ideas vs. creativity of ideas per subject

$R^2 = 0.82$

quantity of captions vs. total humor score per subject

$R^2 = 0.64$

Kudrowitz and Wallace, 2010
humor and creativity

Average Quantity of Captions and Product Ideas

- Improv
- Designers
- Students
- Other

Captions: 17% more captions
Product Ideas: 20% more ideas

Average Count of Humor 2-Scores and Creativity 2-Scores

- Improv
- Designers
- Students
- Other

Humor 2-Scores: 32% more humor 2s
Creative 2-Scores: 21% more creative 2s

kudrowitz and wallace, 2010
humor and creativity
divergent thinking, associative thinking, lateral thinking
improv games

36% more ideas!

to:
- bonding
- playing
- comforting
- lowering inhibitions

from:
- listening
- making associations
- manipulating ideas
- building on ideas
- going for quantity
- deferring judgement
- encourage wild ideas

kudrowitz and wallace, 2010
zip zap zop
listening.
being ready to act.
word ball
listening.
being ready to act.
making associations
illogical word ball
listening.
being ready to act.
making associations
5 things
going for quantity
team building

1. ______________
2. ______________
3. ______________
4. ______________
5. ______________
look at me!

manipulating an idea.

“Discovery consists in seeing what everyone else has seen and thinking what no one else has thought.”

-Albert Szent-Gyorgyi
doesn’t play just lead to silly ideas?

SNEEZE GUN  FALL APART GUN  FART DARTS
doesn’t play just lead to silly ideas?

1. playfulness and creative abilities are correlated

quality of playfulness correlated significantly with measures of divergent thinking (Lieberman 1965)

strong correlation between social make-believe play and divergent thinking measures (Johnson 1976)

expression of affect in play was significantly, positively related to divergent thinking (Russ and Grossman 1990)

divergent problem solving skills facilitates the development of play skills and vice versa (Wyver and Spence 1990)

quality of fantasy and imagination in early play predicted divergent thinking over time (Russ et al 1999)
doesn’t play just lead to silly ideas?

2. playful environments are healthy for innovation

“noise-free environments end up being too sterile and predictable in their output. the best innovation labs are always a little contaminated.” - johnson

“To invent, you need a good imagination and a pile of junk.”
- Thomas Edison, 1097 patents

attractive things work better
- Don Norman
doesn't play just lead to silly ideas?

3. uninhibited thinking can lead to discovery
doesn't play just lead to silly ideas?

4. silly ideas can be stepping stones

“the bad version”- by scott adams

When you feel that a plot solution exists, but you can't yet imagine it, you describe instead a bad version that has no purpose other than stimulating the other writers to imagine a better version. The first step in thinking of an idea that will work is to stop fixating on ideas that won't. The bad version of an idea moves your mind to a new vantage point.
5. playful products can be more effective products

Products and systems that make you feel good are easier to deal with and produce more harmonious results

- Norman
doesn’t play just lead to silly ideas?

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Products and systems that make you feel good are easier to deal with and produce more harmonious results

- Norman
doesn't play just lead to silly ideas?

6. silly ideas today may be innovative ideas tomorrow

“If at first, the idea is not absurd, then there is no hope for it.”
~Albert Einstein
doesn’t play just lead to silly ideas?

“humor is tragedy plus time” - mark twain
“innovation is humor plus time” - me

6. silly ideas today may be innovative ideas tomorrow
doesnt play just lead to silly ideas?

7. play is how we learn

on tests of visual perception, game players scored 30% higher than non-players. playing video games enhanced individuals ability to detect changes in the environment and their capacity to process information simultaneously. (green and bavelier, 2003)

physicians who spent at least three hours a week playing video games made about 37 percent fewer mistakes in laparoscopic surgery and performed the task 27 percent faster than their counterparts who did not play. (CBSNews, 2004)
doesn't play just lead to silly ideas?

8. silly ideas are serious industry
class logistics
second assignment (part 1)
play! (but do something you weren't intending to do)
watch a comedy
play improv games
play a board game
...

“If you want creative workers, give them enough time to play.” - John Cleese
class logistics

second assignment (part 2)

make an individual legible mind map for the theme of heath & wellbeing. this is not idea generation just exploration of the space! every node should have a text label.

use this map to find 3 sub-themes of heath & wellbeing that you are interested in further exploring. explicitly state these sub-themes and why they are worthy of exploration of problems and needs. mind the scope of the sub-themes

appropriate scope for a sub-theme

- home birth
- cross fit
- alzheimer’s disease
- toilets
- sleeping

adhesive on bandaids = too specific

dance dance revolution treadmill = this is an idea not a sub theme

air traffic control = too distant

medicine = too broad
class logistics
second assignment (part 2)
use our mind map web application in Chrome to digitize your map:
http://product.design.umn.edu/courses/pdes2701/MMWebsite/
you can make it directly in the app but let us know what you did
class logistics
second assignment (part 3)

ten silly ideas with sketches (health & wellbeing)
can use cross products and association maps
doesn’t need to be from your 3 sub themes

1. playfulness and creative abilities are correlated
2. playful environments are healthy for innovation
3. uninhibited thinking can lead to discovery
4. silly ideas can be stepping stones
5. playful products can be more effective products
6. silly ideas today may be innovative ideas tomorrow
7. play is how we learn
8. silly ideas are serious industry
each of the 10 ideas should be a separate (legible) scan of a full page landscape orientation sketch in your notebook with a title
class logistics

second assignment

be creative while doing the assignment but not creative with the rules of the assignment (we are trying to teach you a process)

half points will be given for partially complete sections

do something fun

1 = A short description of what you did and why with a photo! This fun activity should be something you don’t typically do and should be something that you are not already planning to do anyway
0 = No documentation what you did.

Mind Map (image)

1 = A well formatted image of your mind map that explores the domain of “health and wellbeing.” Every item on the map has text and text is clean and legible. The mind map shows that you thought through many of the topics related to the overall theme. This map should reflect at least an hour of work. This can be done directly in the web application but an image of the map is still required here.
0 = No mind map image

Mind Map (digitization)

1 =If you made your mind map first on paper, translate your map into the web application and let us know if you made the map first on paper. Please use Chrome to ensure there are no glitches with the application. If you made your map directly in the web application, simply let us know that here.
0 = No digitized mind map

Suggested Themes

1 = A list of 3 specific themes that you think are interesting to explore within the domain of “health and wellbeing.” These themes should be of the correct scope as described in class and pulled directly from your mind map. For each include a statement on why this is a worthy area of exploration for problems and needs.
0 = Did not list themes

10 Silly Ideas

5 = A half point for every “silly” idea that is presented with a cleanly documented sketch and title
0 = Did not include any idea sketches

Outline/timeline due tomorrow
Blog post due 9/28
Peer review due 9/30

Post title: associations
class logistics

non-site visit HERE! - Thursday + Tuesday classes

wear comfortable clothes and shoes

tane danger, brandon boat, and the theater of public policy
peer review

11 didn't do the review at all (each of these is 2.5% of your grade)
17 did it incorrectly (wrong blogs, wrong format)

Three paragraphs:
“I like… I wish… what if…”
with at least 2 sentences for each

the worst feedback you can give…
questions!