

### **Student Hub Live people**





Margaret Greenhall is a study skills specialist. She came 6<sup>th</sup> in the 2008 world creativity championships. She tutors on science level 1 and 2 courses. Her hobbies are baking, rowing and Lego. Fred Motson has taught Law at undergraduate and postgraduate level for 15 years. He Chairs a first year Law module and teaches across Levels 1, 2 and 3. His hobbies include 5-a-side football, computer games and following Derby County FC.

### **Student Hub Live online sessions**

- student hub live
- All student hub live sessions are non-modular and focus on skills relevant to study at university level
- Polls are anonymous to other participants, but the chat box will have your logged in name associated with your comments during the live session.
- All online sessions are recorded and available to view on catch up on a public facing website.
- Slides and resources are available to download during the session from file downloads box (*not accessible on mobile devices*) and from within the event's page at <u>http://studenthublive.open.ac.uk/</u>







### Workshop



- This is going to be a structured workshop to help you think about creative problem solving.
- It is not subject related as we have people from all over the university on the session.
- There is a lot of interaction so please be ready to answer polls (questions) or add to chat pod during the session.



### **Session purpose**

- This is for:
- Covering general advice about problem solving.
- Giving some ideas for how to problem solve
- Provide a space to share ideas and connect with other students
- It's not for:
- Telling you what you HAVE to do
- Providing any module specific advice



### **Please be aware**

- These sessions are large scale
- They are very busy
- There is lots of interaction
- They are not the same as other tutorials
- Chat may be off topic that's OK
- You can maximise slides on your own screen by clicking the icon





- Do NOT share any personal information in the chat pod during the session.
- On the recording names will be anonymised to user number.
- However if you type anyone's full name or any other personal information in the chat pod it can be seen by everybody and it would also show up on the recording.



# Creative problem solving techniques for success



### This was our advert...



Are you more of a dreamer, a realist or a critic?

- All of these characteristics help you work round the problem solving cycle. When you are confronted with a new problem, the way you approach finding the solutions is based on the creativity cycle. Each of us has personal preferences for which part of the cycle we prefer to work in.
- To be truly successful you need to work on all parts of the cycle. This session will introduce the creative problem-solving cycle and the steps people take to solve problems. It will give you some ideas for how you can jumpstart your creativity by using tools to help each part of the cycle. Suitable for students at all levels of study.
- Please note this is not about mathematical style problems.

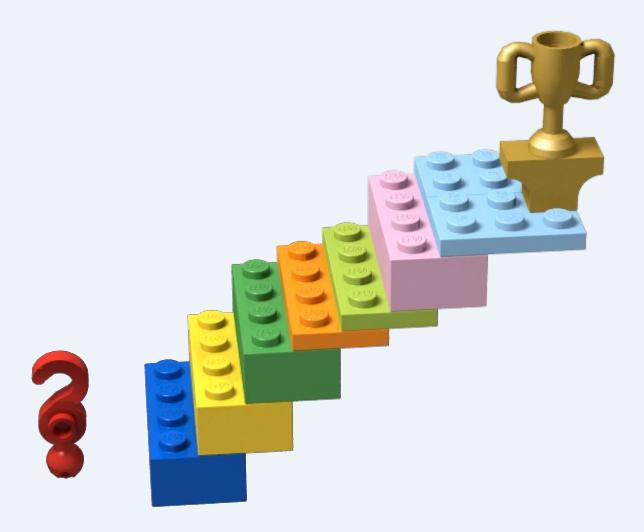


### **Poll time**

• When are you creative?

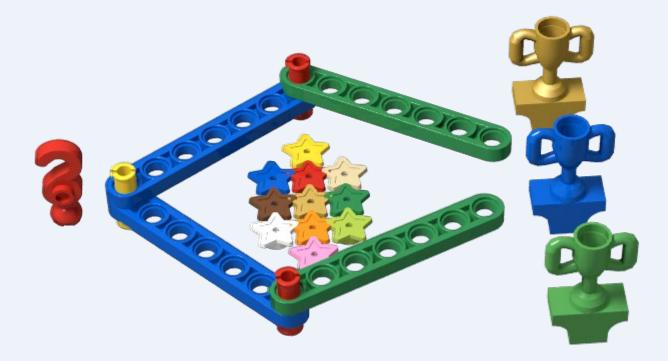


### Logical problem solving





### **Creative problem solving**





### **Critic/Evaluator**

The critic is an evaluator. They give not only negative but also positive feedback on improvements. The aim of the critic is to find all the possible problems. The critic evaluates the options and looks for pit falls. They set boundaries.

- "Why?"
- "Yes but .....?"
- "What else have I missed .....?"
- "What will make this fail .....?
- "Every plan has a weak link....."



The aim of a dreamer is to generate as many ideas as possible and to select those that seem to have the most potential. Needs to have time away from the critic and realist to generate as many ideas as possible.

Not concerned with what is practical.

What if....?" "If I was guaranteed success.....?" "If I had unlimited time and resources..?" "What could I do with £10 million .....? "What if I changed that ....?" "What if I used this?"



student

### Realist



The realist takes the dreams and makes them practical. They search for missing information and make implementation plans. The aim of the realist is to create a specific and practical proposal. They may need lots of cunning and ingenuity. They are not critical of the idea or their plan.

"How could I make this work.....?" "Who or what else could I copy .....?" "What has worked before? "I'm 110% sure it can work somehow" "How do I make this better .....?"





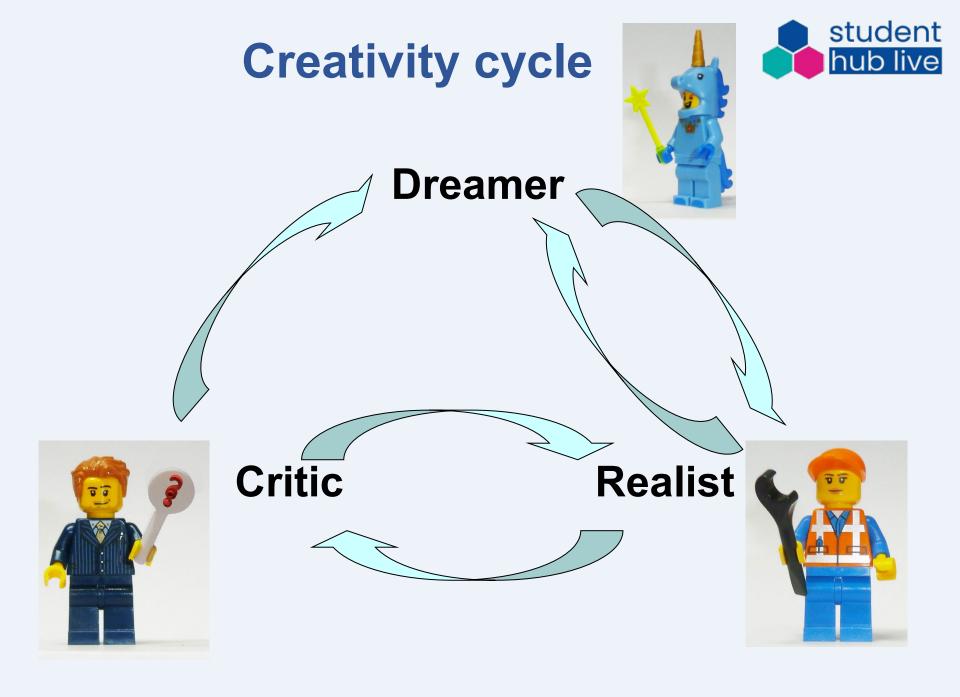


### Which personality do you think resonates with the way you work and why?









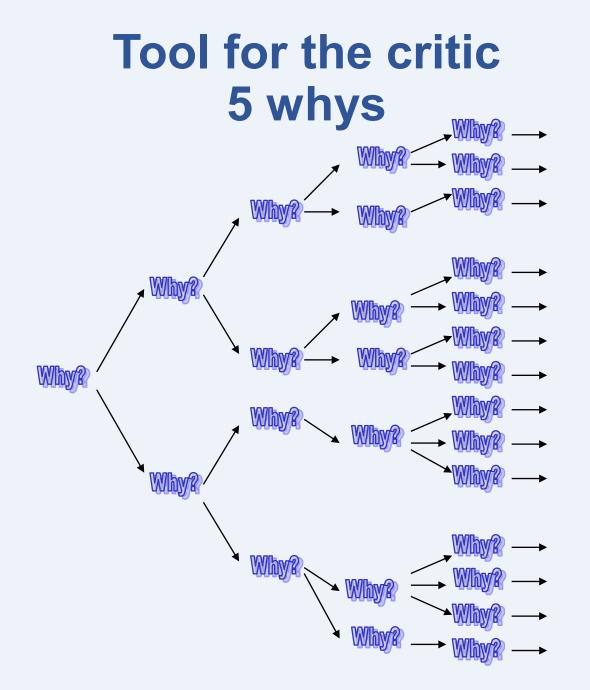




#### How do you work in this creativity cycle?

Thinker toys, Michael Michalko - ebay or used Amazon













#### Why do we need to solve global warming?

### I'll pick just one to go to the next stage each time.

### Tool for the critic First half of Phoenix list

- What is the unknown?
- What is it you don't understand yet? What is the information you have?
- Is the information sufficient? Or redundant? Or contradictory?
- What isn't the problem?
- Should you draw a diagram of the problem? Where are the boundaries of the problem? Can you separate the various parts of the problem?
- Can you write them down?





### **Phoenix list**



What are the relationships of the parts of the problem?

What can't be changed and is constant in the problem?

Have you seen this problem before?

Have you seen this problem in a different form?

Can you use someone else's solutions?

Can you restate your problem?

Can you make it more general or more specific? What are the best, worst and most probable cases you can imagine?

## Tool for the dreamer reverse thought shower



Take your problem and reverse it to solve the opposite problem. Works as you know you're never going to use the ideas and they can be completely impractical.

## Tool for the dreamer reverse thought shower



Find a big opposite of your problem Give yourself a time limit – 20 mins maybe All ideas collected No nots and nos have to be positive solutions to the new problem.

Once you've got lots of ideas reverse them to get positive solutions.





### What ideas do you have for the reversal of How do we reduce global warming?

### Poll



Reverse thought shower:

How do we heat up the earth by 5 degrees in the next ten years?

### Tool for the dreamer random word



Have a random word grid/bag. Randomly pick a word. Write down a list of ten things that you associate with it. Now tackle your problem there is definitely a connection between your list and your problem.

Keep at it for a while – it doesn't come straight away.

### Tool for the dreamer random word



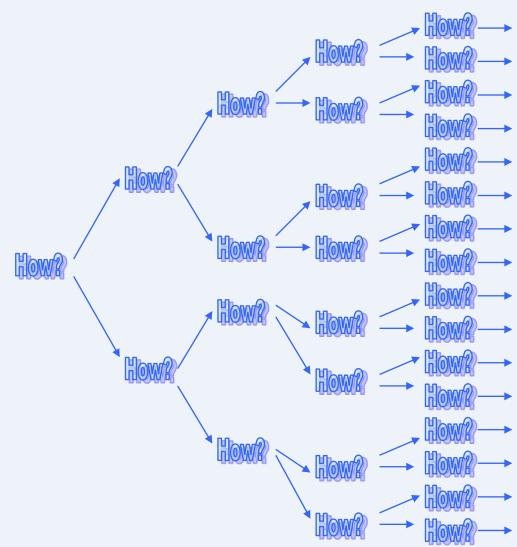
Sellotape	Envelope	Football	Daffodil	Train	Dragon		
Plastic bag	Sink	Spoon	Rave	Glue	Barbecue		
Ice Berg	Storm	Pub	Pyramid	Compass	Light		
Clock	Paint	Wolf	Zoo	Razor	Heart Soil		
Oceans	Moon	Pencil	Oil	Medicine			
Wine	Judge	Car park	Kettle	Ruck sack	Pig		
Bear	Rubber	Swimming	Camera	Gate	Referee		
Sun	Hospital Digestive system		Thief	Мар	Shark		





### Tool for the realist 5 hows











### Taking one of our ideas – how would we implement it?



#### Tool for the realist Gantt diagram (and most other project management tools)



Microsoft Project - Retention Project Plan																
: 🕼 File Edit View Insert Format Iools Project Collaborate Window Help						Type a que	stion foi	help	- 8 ×							
1	i 🗋 📁 🗐 🤮 🖏 🐬 🗈 🛍 🔊 😒 🗠 🔅 🕯		🌾   🖿 🥵	3 No Group	- 🕀	् 🤯 🖉	21	4 e	🛥 Sho	w 👻 🗛	ial	- 8	•	B I	<u>u</u> "	
Ē	Tasks + Resources + Track + Report +															
	_								1					1		
		0	Task Name	Duration	Start	Finish	1st Quarter Jan Feb	Mar	2nd Qu Apr	arter May	Jun	3rd Quarte	er Aug Sep	4th Q Oct	uarter Nov	De
	8		Induction	16 days	Mon 02/12/02	Mon 06/01/03	87			,					1	
	9		Report on good practice in retention	38 days	Tue 07/01/03	Wed 02/04/03	<b>—</b>		-							
	10		Initial meetings with key people	5 days	Tue 07/01/03	Wed 15/01/03										
	11		Visits to other universities	5 days	Mon 20/01/03	Tue 28/01/03										
	12		More detailed visits with staff	5 days	Wed 29/01/03	Mon 10/02/03										
	13		Literature search	8 days	Tue 11/02/03	Wed 26/02/03		Ъ								
	14		Writing of report	15 days	Mon 03/03/03	VVed 02/04/03			<b>0</b> -1							
	15		Initial report on current good practice	0 days	Wed 02/04/03	VVed 02/04/03			<b>62/0</b> 4	4						
	16		Dissemination and sharing of good practic		Mon 07/04/03	Mon 02/06/03			<b>—</b>	_	•					
	17		Organising the meetings	8 days	Mon 07/04/03	Mon 28/04/03				<b>—</b>						
	18	<b>T</b>	Meetings themselves	3 days	Mon 19/05/03	VVed 21/05/03				- Ť-,						
	19		Dissemination meetings	0 days	Mon 02/06/03	Mon 02/06/03					02/06					
	, 20	20 E Pilot project initiations		26 days	Mon 02/06/03	Tue 29/07/03				- <b>-</b>	-					
4	21	21 Identification of suitable projects		8 days	Mon 02/06/03	Tue 17/06/03										
ŧ	22	2 Identifying which depts, to work with		3 days	Wed 18/06/03	Tue 24/06/03					i iii					
ð	23 Setting up the projects		10 days	Wed 25/06/03	Wed 16/07/03											
24 Report on pilot project initiation		5 Nove	Mon 21/07/03	TUA 20/07/03						1000						

Tools for success, Suzzanne Turner - ebay or used Amazon



### **Return to critic**



#### **CIA Phoenix - list the plan**

Can you solve the whole problem?

What would you like the resolution to be?

Can you picture it?

- How much of the unknown can you determine?
- Can you derive something useful from the information you have Have you used all of the information?
- Can you separate the steps of the problem-solving process?
- Can you determine the correctness of each step?
- What creative techniques can you use to generate ideas?
- Can you see the result?
- How many different results can you see?
- Can you intuit the solution?
- Can you check the result?



### **Return to critic**



#### **CIA Phoenix - list the plan**

How many different ways have you tried to solve the problem? What have others done? What should be done? How should it be done? Where should it be done? Who should do it? What do you need at this time? Who will be responsible for what? Can you use this problem to solve some other problem? What is the unique set of qualities that make this problem what it is and no other? What milestones can best mark your progress? How will you know when you are successful?



### **Return to critic**



#### **CIA Phoenix - list the plan**

Can you solve the whole problem? What would you like the resolution to be? Can you picture it? How much of the unknown can you determine? Can you derive something useful from the

information you have?

Have you used all of the information?

Can you separate the steps of the problemsolving process?

Can you determine the correctness of each step?

What creative techniques can you use to generate ideas?

Can you see the result?

How many different results can you see?

Can you intuit the solution?

Can you check the result?

How many different ways have you tried to solve the problem? What have others done? What should be done? How should it be done? Where should it be done? Who should do it? What do you need at this time? Who will be responsible for what? Can you use this problem to solve some other problem? What is the unique set of qualities that make this problem what it is and no other? What milestones can best mark your progress? How will you know when you are P9 successful?



- There will be 2 specific questions in chat pods for you to explore some of the elements we have discussed further
- I great at solving problems when...
- I am going to explore my creativity more by ...
- You are welcome to add your thoughts and we will then pick up some of the themes and talk through them
- Chat does have names on but the recording will be anonymised so you will appears as 'user number'



### Take home message

- Use tools to keep you in role
- Creativity takes time
- Sometimes there are only better solutions not perfect ones





### **Feedback please**

Please use the following link to provide feedback to help the Student Hub Live team to continue to improve what we do:

https://forms.office.com/e/HBQhEMVfaM



### **Upcoming events**

- 29-May 7pm Creative note-taking
- 06-Jun 7pm Critical thinking (Introductory)
- 11-Jun 11 am Support and well-being for carers
- 13 Jun 7pm Critical thinking (intermediate)
- 18 Jun 7pm SHL summer party!
- 19 Jun 7pm Critical thinking (advanced)
- 26 Jun 7pm Learning from feedback
- 27 Jun 7pm Applying other people's ideas

For more information on all past and upcoming events, go to <a href="http://studenthublive.open.ac.uk/">http://studenthublive.open.ac.uk/</a>