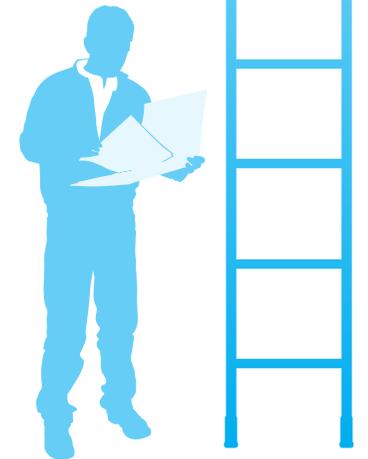


How do you create effective business simulation games?

Elgood's 10 Step Design Process

Tackle your issues • Engage your staff • Maximise performance

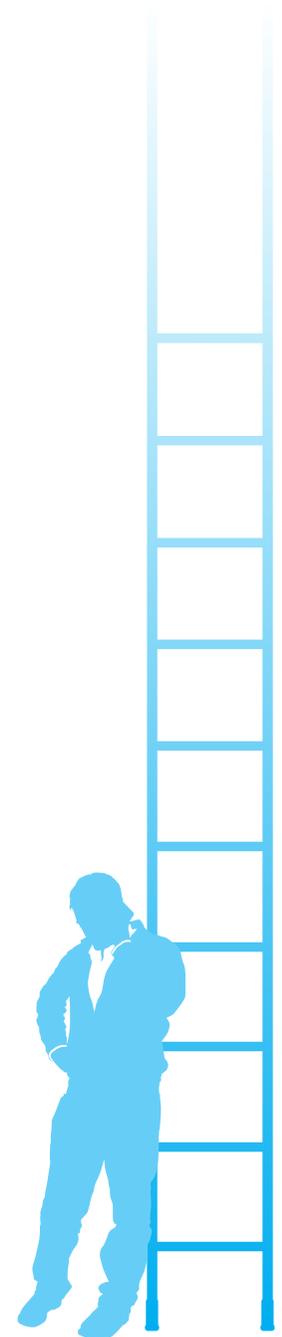


How do you create effective business simulation games?

Imagine the situation: One of your business unit leaders has requested some specialised training, or your CEO has decided that the organisation is changing direction and has asked you to find an engaging way to communicate the new ideas? Sound familiar?

Faced with the challenge of delivering the training in an engaging format, and aware of the need for your participants to test their knowledge in a risk-free environment, the logical choice is to use a game or simulation. But how do you start designing one?

At Elgood we have over 40 years' experience of designing business simulation games across a wide variety of industries and subject areas. This paper shares with you our core design process, providing step by step guidelines which take you through the key stages of development and highlight some of the potential pitfalls.



First, a definition

The term business simulation game covers a wide range of activities, anything from a card based face to face activity to an interactive online one. It is used to refer to business focussed activities designed to develop business acumen and management focussed activities designed to improve the way in which an organisation is managed. Our thinking has evolved to define the various different activities (Handbook of Management Games) our thinking has evolved to define a business simulation game as:



A device through which individuals learn about how businesses and organisations work, and which enables them to improve their performance within their organisation through the development of business and/or inter-personal skills.

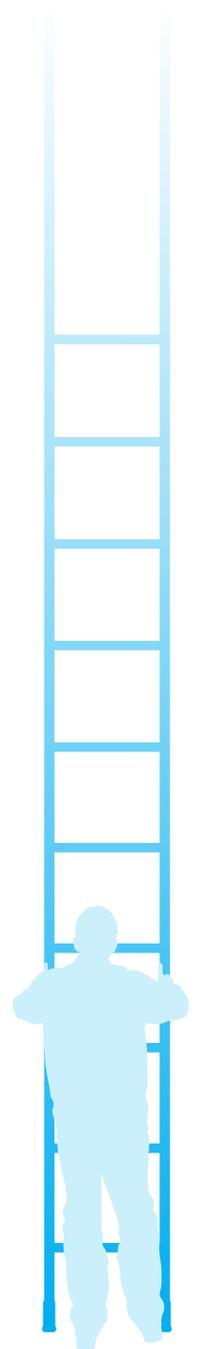


The device offers participants a safe environment in which they can make decisions, experience consequences and understand the relationship between the two. It is usually focused on a problem area in which a better outcome could be achieved if people knew more or behaved differently.

For further information about the distinction and definitions look at these Wikipedia sites which contain references to the main players:

http://en.wikipedia.org/wiki/Business_simulation

http://en.wikipedia.org/wiki/Business_game



Analyse the problem

Before you begin to think about the type of business simulation game you want, you need to be certain that you have a clear understanding of what the problem is.

- What are people doing (or not doing) that is causing the organisation a problem?
- Is the problem at an individual, group or organisational level?
- What is the impact of this issue on the organisation?

This problem identification stage often involves asking a variety of questions and creating a picture of the problem. Techniques we use include:

- Kiplings 5W's and H. The key questions of what, why, where, when, who and how
- Ishikawa's Fishbone diagram

There are many other problem identification techniques and the key is to find one that suits your style. Once you have chosen a technique focus on uncovering the real problem and its causes. Don't be put off by red herrings, rigorously weed out the possible causes to identify the critical one.

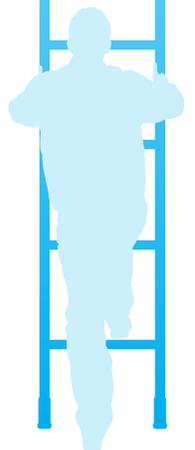
In our experience, this identification stage is often overlooked because it is difficult and time consuming with participants having to sort through a quagmire of possible causes to get to the root cause and effect.

If you don't persevere the danger is that whatever you create will not address the real problem.

For further information about Kipling's 5W's and H and Ishikawa's fishbone diagram:

1. **Ishikawa Fishbone cause and effect diagram** <http://asq.org/learn-about-quality/cause-analysis-tools/overview/fishbone.html>
http://www.gc21.de/ibt/en/ilt/ibt/regionalportale/sadc/downloads/ishikawa_diagram.pdf -
2. **Kiplings 5W's and H** http://changingminds.org/techniques/questioning/kipling_questions.htm

1



Identify the required outcome

Aquire more knowledge

If they knew X they would do Y.
e.g. a staff member tasked with winning more customers targets the least profitable customer segment because they are unaware that different customer segments generate different profit levels.

Understand a new idea or concept

A change in the external competitive or regulatory environment has not been explained to an individual, e.g. a staff member refuses a minor change in a product unaware that the company now faces strong competition and can no longer rely on its dominant position to win sales.

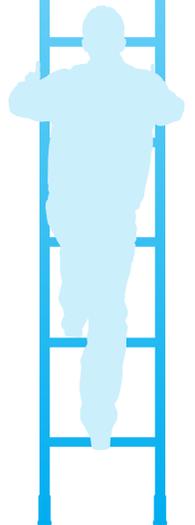
Do something differently

A procedure has changed and the individual needs to do things differently, e.g. a new procurement process has been introduced to reduce costs and a staff member places a verbal order with a supplier not included in the system.

Now, do a double check and make sure the problem and the outcomes can be addressed by a training activity. For example, if the real issue is that an organisational procedure is slowing down a process then it is the organisational procedure that needs amending.

This is not a training issue. Don't waste the organisation's resources.

2



Create clear objectives and get agreement from all parties

“If you don’t know where you are going, you’ll end up someplace else.”

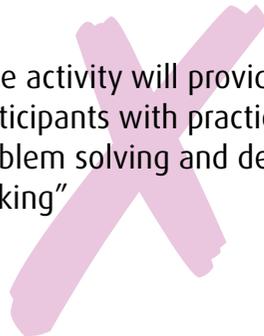
Yogi Bear

I can not stress enough how important this is. To be effective the simulation game must have focus. If you don’t know what you are aiming for then you are unlikely to hit the target.

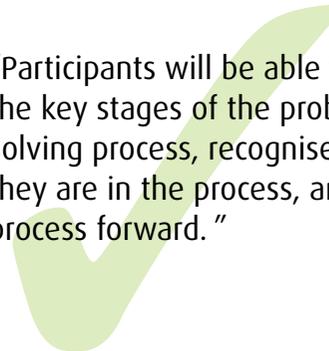
Be realistic about what you might be able to achieve from the activity, if you come up with 10 objective statements, will you really be able to achieve all of these? We recommend prioritising them and then focussing on the top three only. These are the things that will really make a difference to the organisation.

Let me clarify what we mean by an objective statement. You are looking for a clear, short statement which says what the person will either know, understand or be able to do differently having take part in the simulation game.

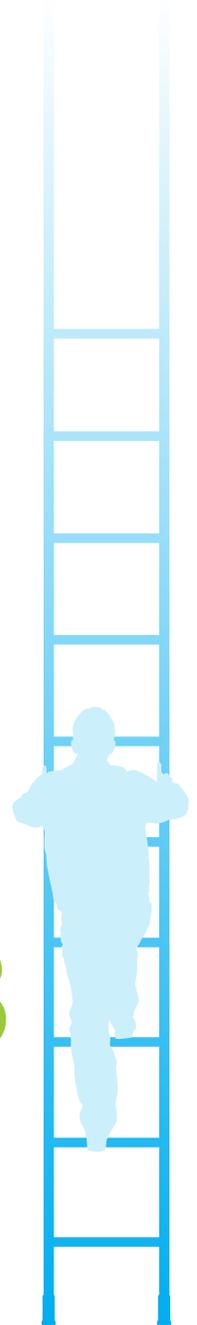
“The activity will provide participants with practice in group problem solving and decision making”



“Participants will be able to identify the key stages of the problem solving process, recognise where they are in the process, and take the process forward.”



3



Match the outcome and objectives to the game design

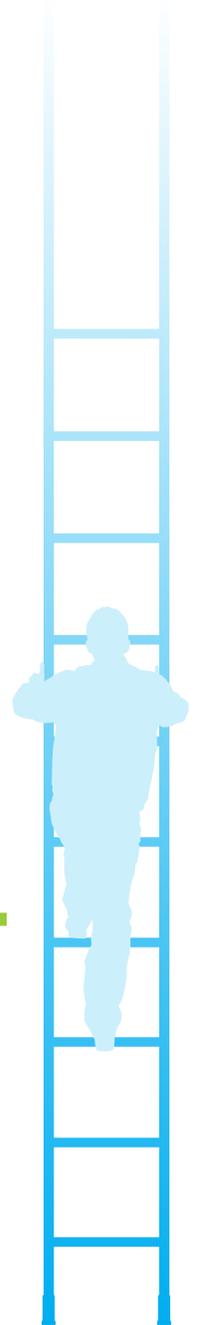
It is at this stage you start to think about the business simulation game. The core focus will be driven by the type of problem you have identified and the outcome you require.

In our experience the focus will usually be on one of these three areas:

- Improving the level of factual knowledge or understanding
- Improving the level of knowledge and understanding of individuals and how they interact with others on a personal level
- Improving the process through which individuals interact as a group to achieve a shared outcome



4



Match the outcome and objectives to the game design

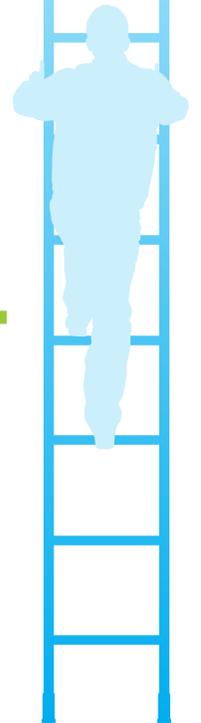
Improving the level of factual knowledge or understanding

If individuals do not know that a system or procedure exists, or do not understand why it exists and the implications of not following it, then that procedure is often ignored. To create greater knowledge and understanding the game needs to:

- Mirror the real world
- Have content which is accurate and believable
- Contain clear links between actions and outcomes



4



Match the outcome and objectives to the game design

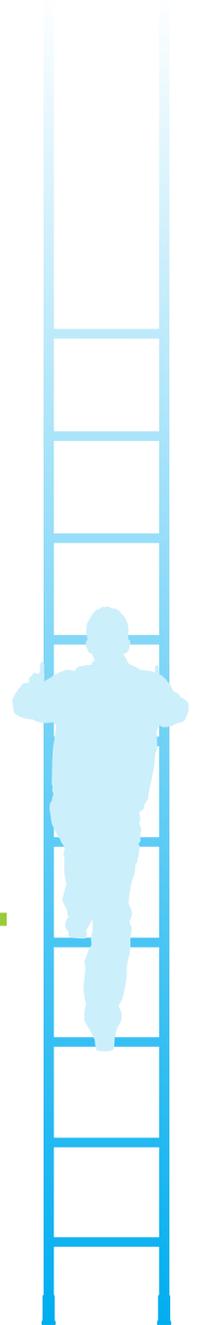
Improving the level of knowledge and understanding of individuals and how they interact with others on a personal level

The focus here needs to be on raising each individual's awareness of how their actions impact on others and how those of others impact on them. In this case the game needs to:

- Be based on subject matter that is interesting or challenging to engage participants and enable a dialogue.
- Build in opportunities for interaction. Individuals learn about how their behaviour affects others by taking action and observing the reaction.



4



Match the outcome and objectives to the game design

Improving the process through which individuals interact as a group to achieve a shared outcome

This is the classic poor teamwork issue. A task is divided between several people who are supposed to contribute their expertise to the best of their ability at the appropriate time. In reality the group fails to deliver because there is no group process.

A game developed to address this must provide participants with the opportunity to work together on a group task. It should:

- Highlight the process through which the team allocates, monitors and evaluates the task.
- Provide an opportunity for the participants to share personal information: good teamwork requires respect between team members.
- Increase the knowledge individuals possess about each other and widen the areas in which respect can be built.



4



Define the audience

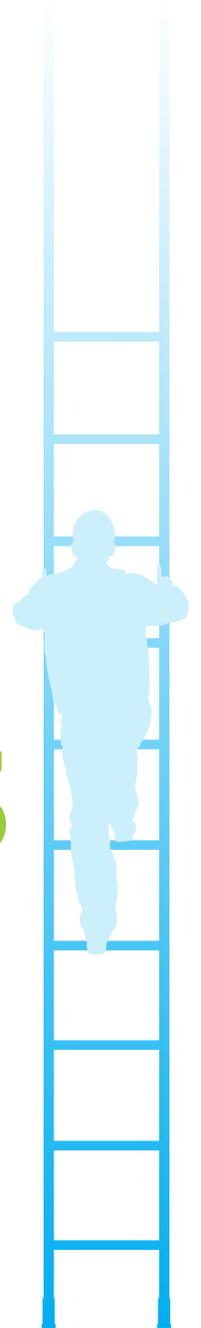
It is essential that the participants find the activity engaging. If you want them to work hard at the task then their successes and failures need to be genuine.

To ensure this level of commitment two conditions must be met. The simulation game must be perceived as relevant and the format (method of representation) must be acceptable to the group (Step 7). The relevance may be actual (the game talks about real life, familiar and topical subjects) or allegorical (there is a superficial difference but a likeness in principle). Whether participation is socially acceptable is a matter of image – “Will this make me look stupid amongst my colleagues and peers?” Individual preferences and corporate cultures might lead to views like:

- I am uncomfortable with this type of physical activity
- I'm not interested in number crunching
- I don't know how to use that technology (Conference calls/ WebEx etc)
- I am employed for my specialist skill: why do I need to know about X?



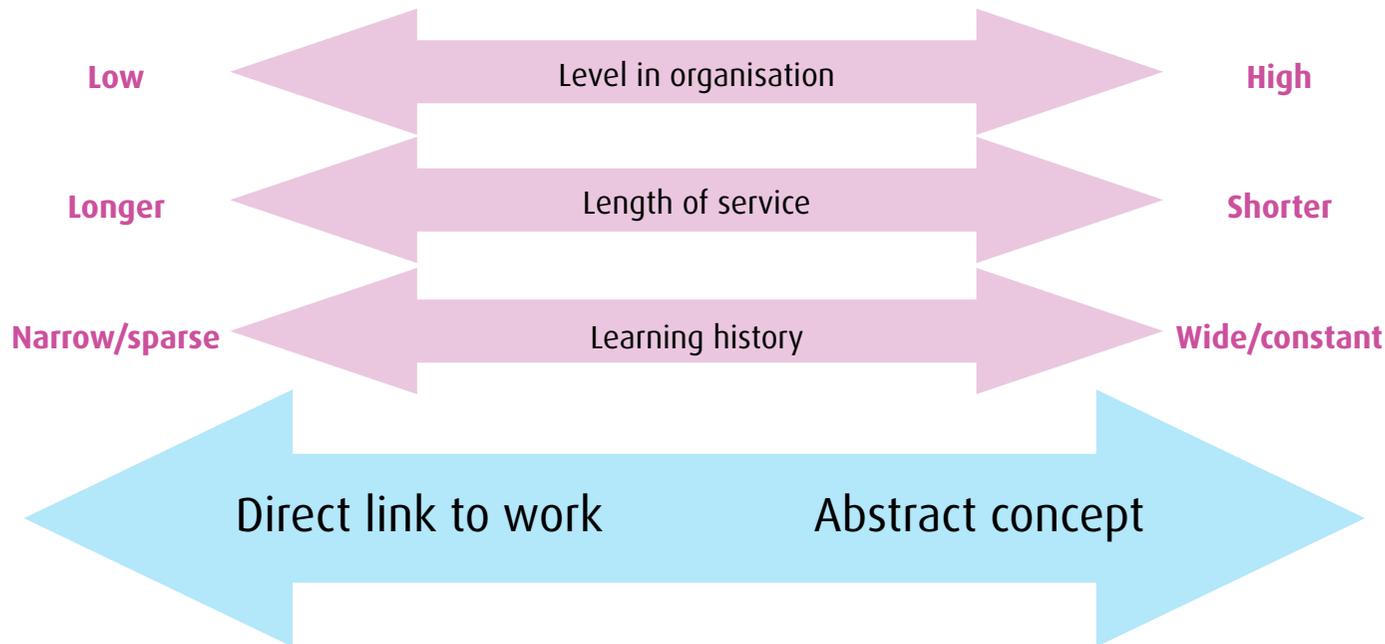
5



Define the audience

To determine how closely you must keep to the real world of the participants consider the individual's level in the organisations, their length of service and their learning history.

Don't worry if not all the questions give the same indication. If you give each of the questions a rating then you can get a good indication of what would work in your environment. It is quite possible to end up with an abstract concept but where the language allows some familiarity.



5



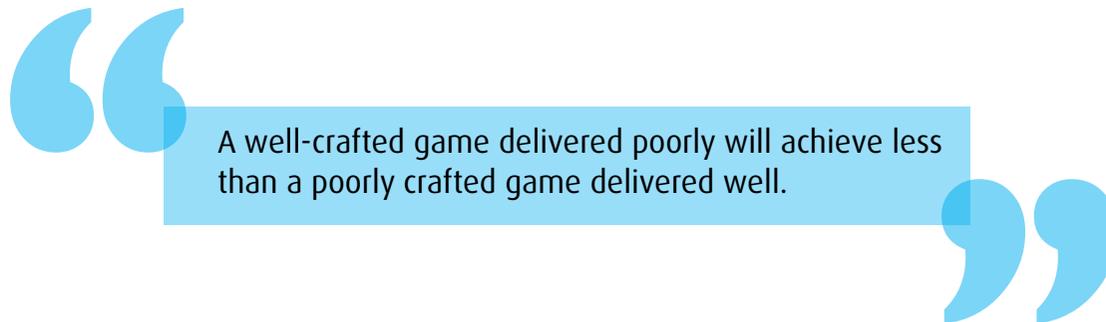
Identify practical constraints

Immediate practical constraints include issues such as:

- The time available for the activity. How long can people be 'out of the office'?
- The physical location of the participants. Are they all in the same place or can they all be brought to the same place for a face to face event, or do you need to consider some alternative delivery options?
- The financial budget available.

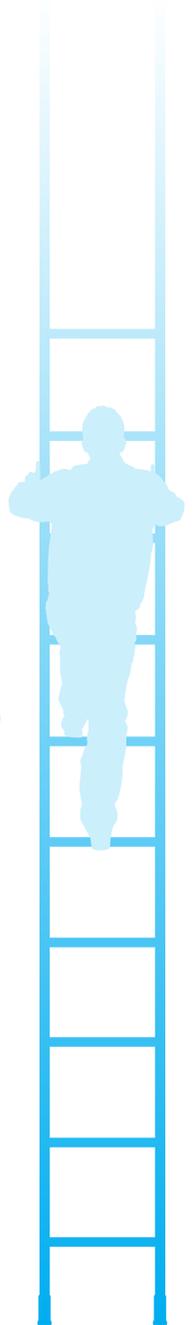
One key constraint that is often overlooked - and which is critical - is the skill set of the facilitator.

If you are responsible for the design but another person is going to be the facilitator, it is vital to start working with them early on. As the design process progresses, lots of decisions are made about what should/should not be included in the simulation game. If the facilitator is involved in this then they will find it much easier, and be much more effective, when they come to facilitate live events.



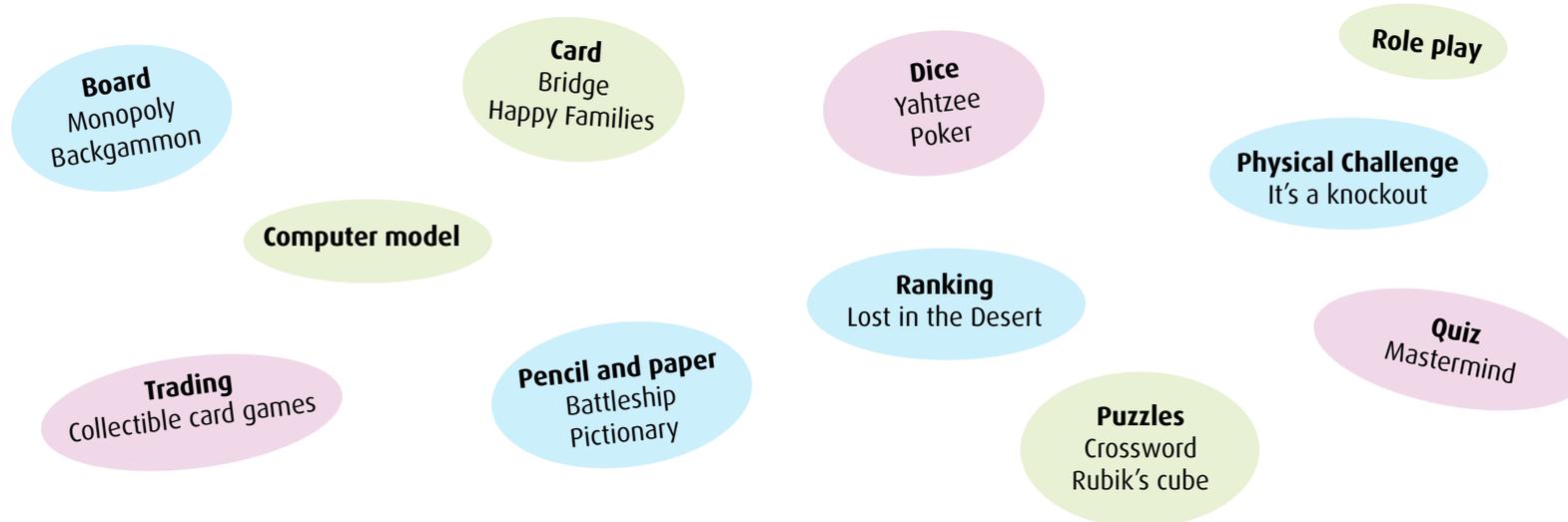
Always consider the skills and abilities of those who will be delivering the game.

6

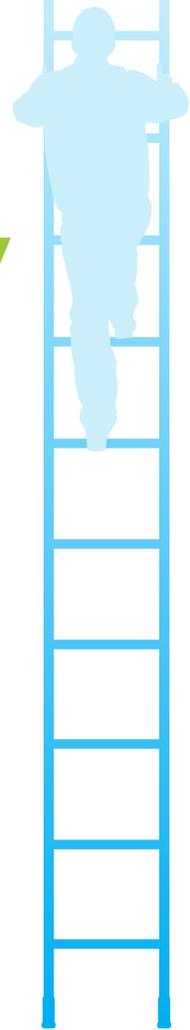


Select the right format i.e. the method of representation of the game

There are a variety of different formats available and it is important to pick the right one for the right circumstances. We regularly join project teams where members have taken part in something called a business simulation game, and therefore automatically focus on one specific format. For instance, somebody who has had a good experience with a card-based game often does not realise how many other types exist.



7



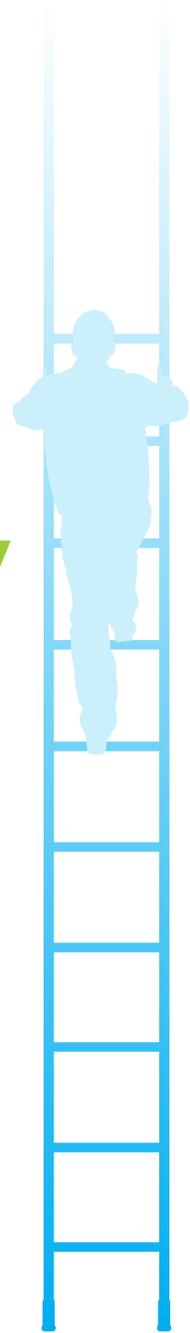
In reality you might use a mix of different formats, for example Monopoly is a board game but makes use of both cards and dice. There are also follow on decisions to be made, for example, if a board game is chosen should it be table top size or larger? If a computer model is selected should it be competitive or not? (Step 8- 2)

Some methods of representation and their attributes are detailed in the following table.

Select the right format i.e. the method of representation of the game

	Board	Card game	Dice	Computer model	Physical challenge	Pencil and Paper	Puzzles	Ranking	Role-play	Treasure hunt	Trading	Quiz
Achievable in a short time frame		◆				◆		◆				◆
Can provoke very polarised reaction			◆	◆	◆							
Draws on familiar conventions	◆	◆					◆	◆		◆		◆
Easy to score	◆	◆	◆	◆	◆	◆	◆	◆		◆		◆
Easy to adapt					◆	◆			◆	◆		◆
Good for factual data			◆					◆				◆
Higher design cost				◆								
Location dependent					◆					◆		
Longer development period				◆								
Most suitable for Virtual and On line				◆								◆
Obvious win line	◆	◆	◆	◆	◆		◆	◆		◆		◆
Private information can be made available		◆							◆		◆	
Provides a dominant focal point	◆											
Public display of information	◆						◆	◆				
Relaxes the constraints of work	◆	◆	◆		◆					◆		
Scaleable		◆	◆		◆	◆	◆			◆		◆
Technology dependent				◆								

7



Select the best format for your specific situation

Create a prototype

In-house we call the first prototype a 'breadboard'. The term comes from electronics where you start with a blank board and can experiment placing the components parts in different configurations until you have what you want.

When you first start pulling your ideas together, don't worry what it looks like. Using plastic artefacts, strips of cloth, decision sheets laid out as grids with blanks where the questions and answers will be or a screen shot of a computer screen, you can get a really good feel for how the simulation game will work and the learning that will evolve.

Creating the prototype is an iterative process of generating ideas, testing them out and then refining them. Our process looks something like this:

Preparation

First pass

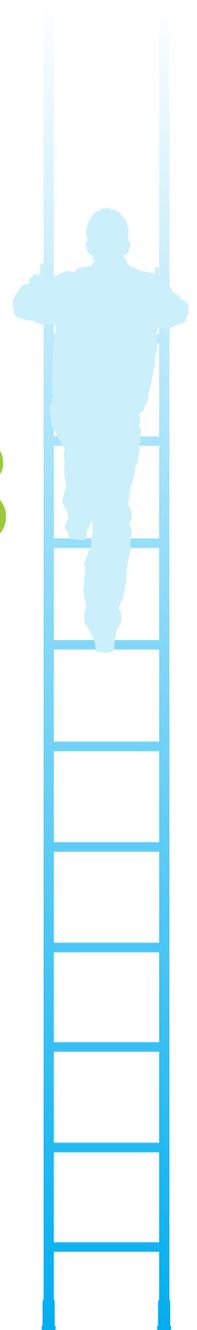
Participant's perspective

Reality check

Decide your ending

Final check

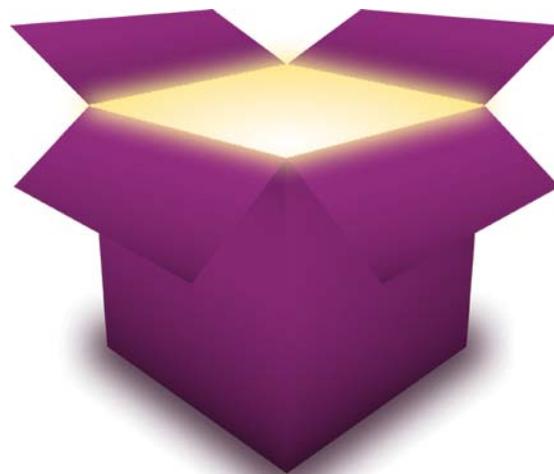
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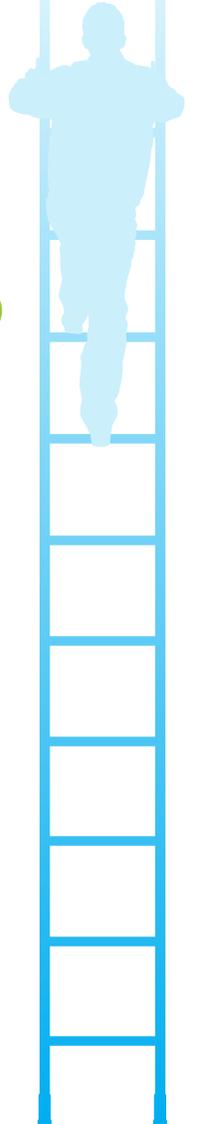
Create a prototype

Preparation

- Write the objective up on a flip chart and stick the sheet in a prominent place.
- Create a 'parking lot'. This is often another flip chart sheet where we note ideas that arise during the discussion but which were not in the original objective statement list.
- Get a huge piece of paper for sketching out ideas, so that the whole group can participate.
- Check the Blue Peter Box. This is our box of resources which contains examples of things we have done previously (magnetic boards, standard playing boards, dice, counters, screen shots) along with standard stationery (post it's, coloured pens), some less standard stationery items (glue, stencils, stickers) and some wildcards (puzzle books, magic cards). The materials in the box allow us to convey ideas which may be outside our client's area of knowledge or experience.



8



Create a prototype

First pass

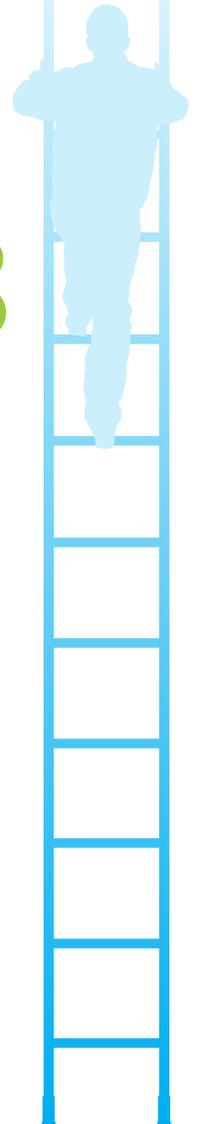
It is now that the final product really begins to come to life. As the debate progresses, ask yourself questions about the game mechanics. For example, if you have decided on a board game you might ask:

Question	Some options
What size should the board be?	Tabletop or a floor display people can walk around.
What markings are needed?	Graphics, instructions
How will the players move around?	Cards, Dice, Time
What instructions are required?	Verbal briefing, reference cards, Power Point
What other artifacts might be required?	Rewards, penalty items, markers

If you have decided on a simulation where people will enter data into a computer you might ask:

Question	Some options
Will the simulation be interactive or non interactive?	Will the players respond to questions at the computer and get an immediate response or will they submit their decisions and receive their results back at a pre-determined time?
Competitive or non competitive?	Will each player compete against the model or will the decisions of the players interact to create a competitive market place.
What technology is available	Will the IT department allow you to use the company intranet or will the solution need to run on a stand alone machine?
What time period makes sense?	Weekly, monthly, quarterly, half yearly

8



Create a prototype

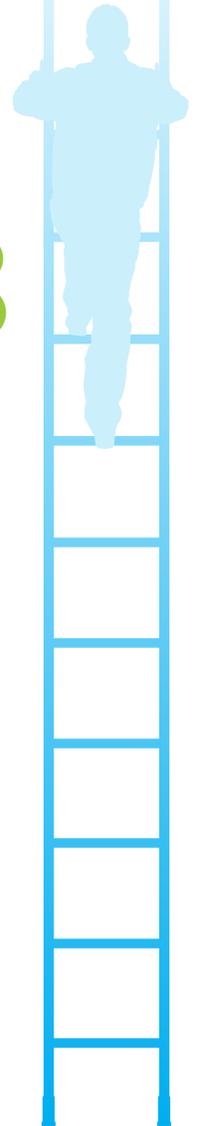
Participant's perspective

Put yourself in the place of a participant and ask yourself whether you would find the game engaging. Questions might include:

- What would I be doing? What are the physical actions and thought processes?
- Does this look engaging? Will I be pulled into the activity?
- Is it clear to me what I have to do and why I am doing it?



8



Reality check

Do a reality check to see if the idea is practical. The biggest issue here is often the length of the instructions both for the facilitator and the participants. Avoid lengthy instructions unless they can be justified by the complexity of the game. Tactics we use to reduce the length of the instructions include forging links with procedures that are already common knowledge. For example, board games have many common procedures: if you are using technology then a well-known intuitive platform can reduce the need for explanation. To help the facilitator you can use frequently asked question (FAQ) prompts. This allows the facilitator to find information when required without being forced to read through information that is of no immediate use.

As a guideline we recommend that the shorter the time allowed for the activity the lower the percentage of time spent on reading the instructions. So for example, for a 60 minute activity 15% of the time and for a 3 hour activity 25%.

Create a prototype

Decide your ending

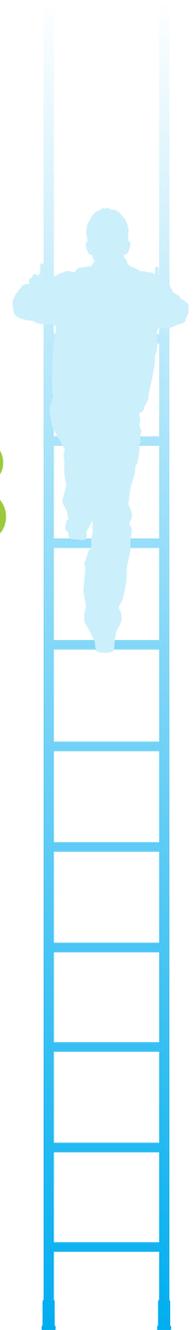
Consider how the game will end. Do you need to have a winner and if so how will the winner be decided? If the simulation is being used as a motivational device then having competition and a winner is useful. When deciding how it will be scored, and particularly the degree of subjective judgment given to the facilitator, you need to consider the experience of the facilitator both in terms of facilitating this type of activity and in terms of their expertise in the subject area.



Final check

Reconsider the original objectives to determine whether the simulation game will meet these. If you are happy with the prototype, give it a trial.

8

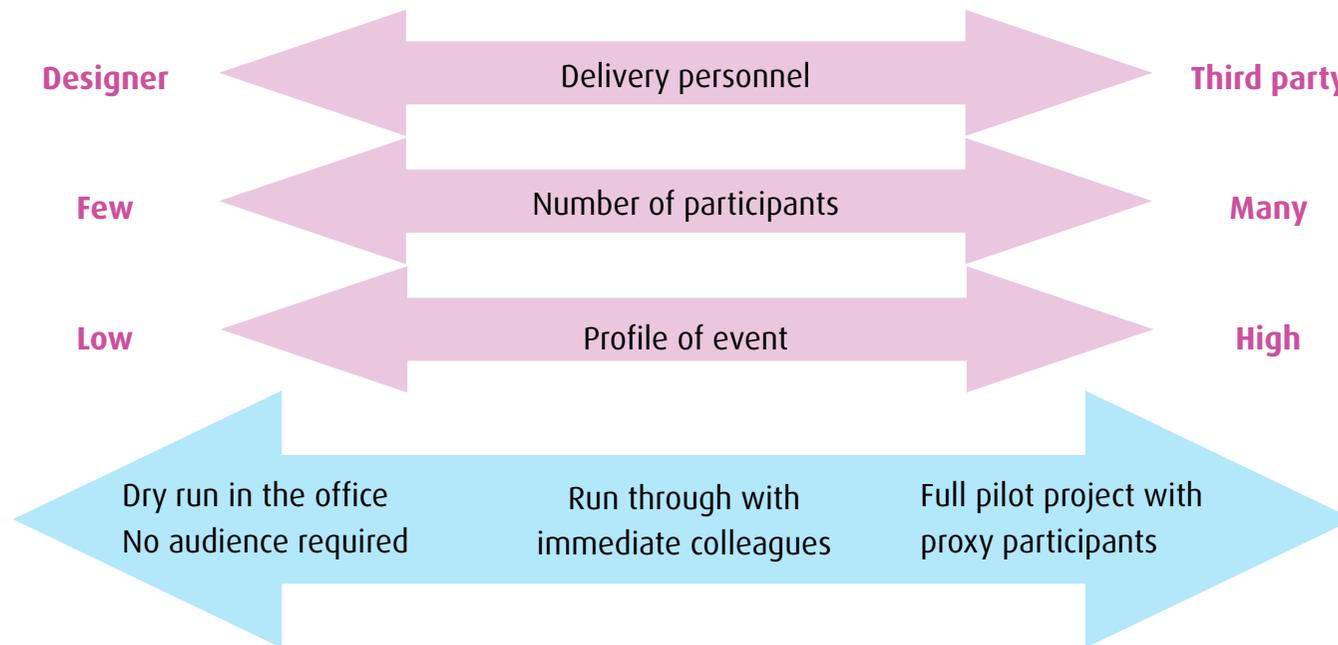


Trial and test

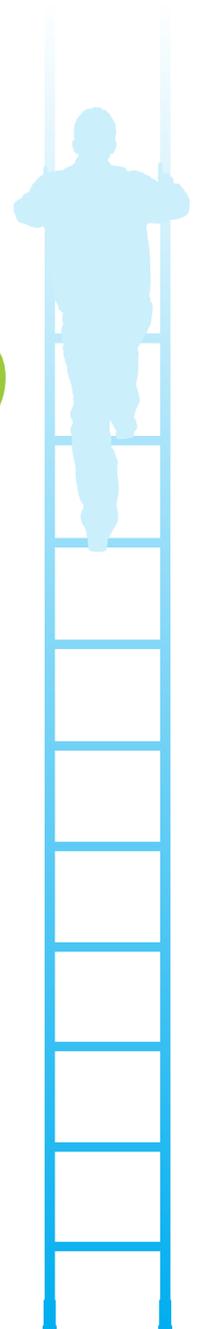
If you cannot use a subset of the final audience for this then use a proxy audience, staff from another business area or possibly colleagues. Remember if you use a proxy audience their comments may need to be censored, but a test with a proxy audience is better than no test.

How much testing?

Depending on the outcome of the test you may have to go through all or some of the cycle again.



9

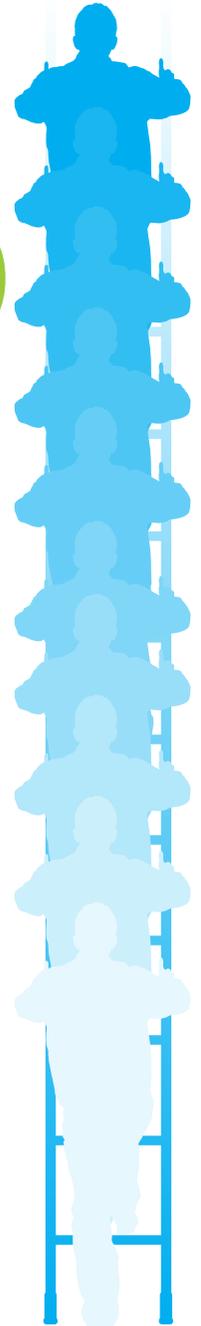


Refine and evaluate

The effectiveness of the product should be evaluated on a regular basis to take account of the changes in the business and audience. Any refinements should be made as a matter of course.



10

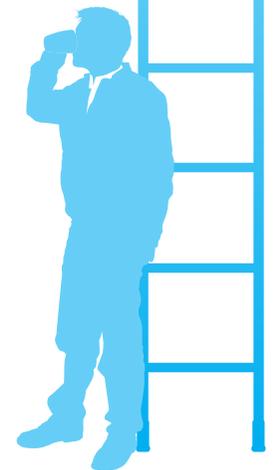


Summary

- Start the process with a clear objective
- Always consider the skills and abilities of the end facilitator
- Search for the best method of representation
- Simplicity beats complexity almost every time

Finally keep asking 'what will the participants do differently if the message of the game comes across clearly and convincingly?' When the answer to this question fulfills the original objective then you have a winning product.

You can now take the framework outlined in this paper and tailor it to suit your own working style.



More about Elgood

Our 10-step process has been developed over many years. Elgood Effective Learning has experience in working in a wide range of industries through changing economic conditions. Learning issues we have addressed include:

- Adapting to a changing marketplace and new customer expectations
- Engaging new employees through the induction process
- Developing new routes to market, both direct and indirect
- Motivating team members
- Safety awareness

For more information on organisations we have helped please visit http://www.chris-elgood.co.uk/case_study_list.php

More about Elgood

Christine Elgood has been Managing Director of Elgood Effective Learning since 1996, having first completed an MBA with experience gained in the financial areas of manufacturing and retailing. Her business qualifications are complemented by training (CTP) and coaching (ILM) qualifications. She has nurtured Elgood Effective Learning into today's dynamic training provider which specialises in the design and facilitation of business simulation games for the business and education communities. She regularly facilitates courses in the UK and at client sites around Europe.

Together with Chris Elgood, who is a renowned facilitator and an authority in the field of learning and development, and the author of *The Handbook of Management Games*, she is backed up by a skilled group of mentors and facilitators who can draw on many years of experience across diverse industries and organisations to ensure that every training event delivers the experience and results required.



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