



Description of Underlying Approaches, Methods and Applied Exercises

Future Scenarios for Sustainable Business Solutions

Underlying Teaching Approaches

[Underlying Approach of the Course]

Short description of the teaching approach on which the format is built.

The course outline of the teaching format was structured along the phases of the future workshop ("Zukunftswerkstatt") methodology, which is part of the future studies discipline: Preparation-, Critique-, Visioning-, and Implementation- Phase. The Preparation Phase is used to get to know each other, set the scene, and form the working groups. In the Critique Phase, students learn about the status quo and challenges for businesses (e.g., using the SDGs as a framework). Based on these trends and challenges, the Visioning and Implementation Phase provides them with a number of tools to jointly develop and implement their future scenarios by also integrating workshop elements such as LEGO® Serious Play® and improv theater.

Based on the above-mentioned future workshop methodology, active, experiential, and collaborative learning were facilitated through multiple exercises and group work on the futures of respective business sectors, as well as improv and LEGO® Serious Play® workshops. Transformative and self-directed learning was also achieved through weekly reading assignments and a reflective journal. To introduce the basic tenets of the course and respective methods, some lecture-based learning elements were used in addition.

Applied Teaching Methods

[Underlying Teaching Method of the Course]

Short description of the methodologies and its main features / structure.

Among the teaching approaches outlines above, the following methods have been used: Group discussion during exercises, (brief) lecture elements, and self-reflection via journaling in addition to specified futures workshop methods (e.g., Vision building, Scenario development, Forecasting, Gamification, Extrapolation, Backcasting, and Prototyping)

Exercises used in the Course

Exercise:	You and the Future
Used in which part / session of the course:	Preparation phase
Main goal of the exercise:	Contemplation about the importance of future studies for businesses
Best used with:	Max. 20 participants and with/without digital tools (20 minutes)
<p>Short description of the exercise</p> <ul style="list-style-type: none"> • What does a desirable future for you look like (personally/in general)? • What is the role of business schools in this desirable future? • What do you think of when you hear the word "future" (<i>instructor info: you may want to opt for the generation of a word cloud via digital tools</i>) • Select an answer and discuss: 1) I am rather optimistic about the future, 2) I am rather pessimistic about the future, 3) Depends. 	
Exercise:	Future Openness and Personalities
Used in which part / session of the course:	Preparation phase
Main goal of the exercise:	
Best used with:	Max. 20 participants and with/without digital tools (10 minutes without personality test)
<p>Short description of the exercise</p> <p>Team up in teams of 2-4 people, explore your pathway and discuss:</p> <pre> graph TD Q1[Is the future open?] --> Y1[Yes] Q1 --> N1[No] Y1 --> Q2[Can you change the future?] N1 --> Q3[Does it bother you?] Q2 --> Y2[Yes] Q2 --> N2[No] Q3 --> Y3[Yes] Q3 --> N3[No] Y2 --> Q4[How do you do it?] N2 --> A2[Learn new skills!] Q4 --> A4a[In my mind/thoughts] Q4 --> A4b[Through co-creation] A4a --> A4a1[Get active!] A4b --> A4b1[Wow, tell us more about it!] Y3 --> A3[Work on your mindset!] N3 --> A3a[Great! All the best for you.] </pre>	



The exercise above might be connected to the following “16 Personalities Test (MBTI)” and discuss can discuss how the different personalities might be interlinked with respective attitudes regarding the future.

The test will take 10 minutes and is available here: <https://www.16personalities.com/>

Exercise:		Letter to the Future	
Used in which part / session of the course:		Preparation phase (or Implementation phase)	
Main goal of the exercise:		Contemplation and reconnection with the self	
Best used with:		Individual exercise (10 minutes)	
Short description of the exercise			
Write a letter to your future self: https://www.futureme.org/			
Exercise:		Exploring Mega Trends	
Used in which part / session of the course:		Critique phase	
Main goal of the exercise:		Familiarizing yourself with current trends/risks and applying it to a respective sector	
Best used with:		Max. 20 participants; in groups of max. 4 people (20 minutes)	
Short description of the exercise			
Please explore the “Mega Trends and Technologies 2017-2050” map by Richard Watson. Discuss in your group which trends / risks have an influence on the respective industry/sector you picked.			
<ul style="list-style-type: none"> Which powerful question can you ask to narrow down on your future scenario for the industry/sector? 			
Source: https://nowandnext.com/thinking-tools/ : https://nowandnext.com/PDF/Mega%20Trends%20and%20Technologies%202017-2050%20(Web).png			
Exercise:		SDG Gapminder Quiz	
Used in which part / session of the course:		Critique phase	
Main goal of the exercise:		Reflecting on the current status quo of the SDGs/Sustainable Development	
Best used with:		Individual exercise (10 minutes)	
Short description of the exercise			

Please have a look at the webpage below and answer the quiz. What are your common misconceptions?

Source: <https://upgrader.gapminder.org/>

Exercise:	Systems Mapping and Connected Circles
Used in which part / session of the course:	Critique phase
Main goal of the exercise:	Understanding the complexity/wicked problems of a respective sector
Best used with:	Max. 20 participants; in groups of 2-4 people (20 minutes)

Short description of the exercise

Brainstorm system elements (i.e., problems/issues) your industry is facing.

- Take what you think are the most important system elements and put them around the circle and (15minutes)...
- ...start drawing arrows from the elements to other elements of the circle which they have an influence on - this will help you to uncover connections and leverage points (5min)

Reflective questions:

- Which elements have a lot of arrows coming in and out of them? What does this say about them?
- What is the significance of elements that have no arrows pointing to it? / coming from it?
- Are there elements in your circle that have no arrows at all?
- Can you trace a path of arrows that leads back to the starting element? If so, you uncovered a „feedback loop“.
- Are there elements that are part of multiple feedback loops?

Exercise:	Systems Mapping – Stakeholder Mapping
Used in which part / session of the course:	Critique phase (or implementation phase)
Main goal of the exercise:	Understanding which stakeholders are relevant
Best used with:	Max. 20 participants; in groups of 2-4 people (20 minutes)

Short description of the exercise

Map stakeholders within your system. Try to think about their...

- Values: What do you believe they care about in relation to this case? What do you believe is important to them?



- Loyalties: Whose position might they feel is important not to go against and why? Who do they have close relationship with, or history, that they would not want to upset?
- Tensions/Losses: If you made progress on this problem/case, what do you believe could make them tense or uncomfortable? Is there something they would lose or have to give up? What might it be?

Exercise:	Improv workshop exercises (2x90mins)
Used in which part / session of the course:	Visioning phase
Main goal of the exercise:	Sparking creativity and exploring respective sectors across mixed teams
Best used with:	Max. 20 participants; in groups of 2-4 people

Short description of the exercises

1. Introducing a superstar

Team up in pairs of two and briefly introduce your superpowers (i.e., hobbies, things you enjoy or are particularly good at) to each other (1 minute per person). Introduce you team partner to the group and introduce him/her as if he/she was a superstar.

2. Chain of associations

You walk through the room, pick a word, and point to the next person that should add his/her associated word immediately without thinking to long – repeat that as long as a person fails to come up with a word in 2 seconds (e.g., sand – beach – ice-cream etc.). If the chain is interrupted, you all raise your hands and cheerfully say "once again"

3. Jump Stop Clap Go

Walking through the room and repeating the above prompts and acting upon these. After a while, this sequence will be mixed randomly.

4. Yes but - yes and!

Think about any characteristic/challenge of your sector/industry and think about the steps that are necessary to initiate transformation. First, answer to each idea by adding "yes, but..." in front of the sentence. Repeat this exercise by only answering with "yes and".

5. Two headed expert" interview

One person asks questions about the sector/industry, and two performers portray a two-headed expert, who must alternate every word when speaking and thus allowing building of sentences.

6. Magic box

The task is to pull as many magical items as possible from a box in a specific time frame. Students take turns removing an object from the magic box, miming, or acting out its use, and returning the object to the box before passing it on.

7. Stand-up Powerpoint roles

3 people spontaneously line up, 3 other people have their eyes closed and are given a role to answer (e.g., vegan, "mother earth", an activist) and another person then asks these 3 people specific questions, which they answer using the "lined up"/assigned roles.

Exercise:	Journaling
Used in which part / session of the course:	Visioning phase
Main goal of the exercise:	Contemplation about the future
Best used with:	Individual exercise
Short description of the exercise	
<ol style="list-style-type: none"> 1. What are the first thoughts and images that come to your mind when you hear the word "future"? 2. Try to look around mentally in the future of your industry/sector. What do you see? 3. Ideas about the future are often shaped by familiar narratives in books, films and series. Can you also find these narratives in your ideas of the future? Which ones are they? 4. Check your images. How far into the future are you in your thoughts? 2030? 2050? 2100? 5. What feelings does thinking about the future trigger in you? Are there differences when you think about your private future, the future of your work, or about more general future developments? 6. Which future topic causes you the most concern? Which future topic motivates you to actively shape it yourself? 	
Exercise:	Scenario Development (four scenarios)
Used in which part / session of the course:	Visioning phase
Main goal of the exercise:	Developing four scenarios and discussing respective (un)desirable futures
Best used with:	Max. 20 participants; in groups of 2-4 people (20 minutes)
Short description of the exercise	
<ul style="list-style-type: none"> • Decide, whether you want to go for an adaptive or transformative scenario planning. • Think about the uncertainty and strength aspects or the drivers of transformation. Which ones would you select for your industry? Once you have decided, please write them down and add these to the y -/x-axes in the digital collaboration tool. • To design each quadrant, you may select images that symbolize each of these aspects and/or use post-its writing down the most important aspects you discussed for each of the four scenarios. 	
Exercise:	Walt Disney Method
Used in which part / session of the course:	Visioning phase



Main goal of the exercise:	Discussing and reflecting various ideas
Best used with:	Max. 20 participants; in groups of 2-4 people (15 minutes)
Short description of the exercise	
<p>1.Be the Dreamer. The dreamer develops ideas and visions</p> <p>2.Be the Realist: What needs to be done or said? What is needed for the implementation (material, people, resources, knowledge, techniques, etc.)? What do you feel about this idea? Which basics are already available? Can the approach be tested?</p> <p>3.Be the Critic: What could be improved? What are the opportunities and risks? What was overlooked? How do I think about the proposal?</p> <p>Open questions are then handed back to the dreamer, who reintroduces the cycle based on the findings until no longer ask further relevant questions</p>	
Exercise:	The Future Game 2050
Used in which part / session of the course:	Visioning phase
Main goal of the exercise:	Gamified approach to different futures from the perspective of multiple personas
Best used with:	Max. 20 participants; in groups of 2-4 people (10 minutes)
Short description of the exercise	
<p>There are several pre-selected cards for each team/group on a digital collaboration tool. Discuss who is taking on which role/card (please pick one role each) and introduce the personas to each other. Please familiarize yourself with your role and engage in a dialogue about the questions below by acting/answering from the perspective of your role!</p> <p>Discuss the world of your industry by exploring the following questions highlighted on the bottom of the card:</p> <ul style="list-style-type: none"> • How does nature look like? • How do people interact? • How do people move? • How do they trade? • What are popular products/services? • Which rumor is circulating? <p>Source: https://www.thefuturegame2050.com/thefutureshop</p>	
Exercise:	The Thing from the Future
Used in which part / session of the course:	Visioning phase

Main goal of the exercise:	Gamified approach to different futures via discussing respective items from the perspective of students' chosen industries
Best used with:	Max. 20 participants; in groups of 2-4 people (10-20 minutes, depending on the number of rounds)

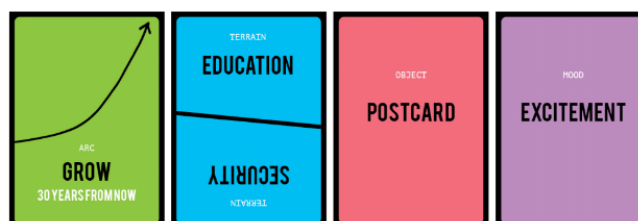
Short description of the exercise

Look at the prompt. 5 minutes are allowed for each player to write a brief description of a thing from the future inspired by the four cards. If possible, try to think about examples within your industry/sector.

- ARC cards broadly describe different kinds of possible futures. These cards contain two kinds of information. The main (top) text of each Arc card specifies one of four generic images of alternative futures for players to imagine: Grow, Collapse, Discipline, or Transform
- TERRAIN cards describe contexts, places, and topic areas. In a completed prompt, the terrain card describes where physically or conceptually the thing from the future might be found. Two terrains appear on each card in order to provide richer possibilities for the deck.
- OBJECT cards describe the basic form of the thing from the future.
- MOOD cards describe emotions that the thing from the future might evoke in an observer from the present.

Introduce your ideas in the group and decide who wins (3 minutes).
Play again (5 minutes) and introduce your ideas (2 minutes).

EXAMPLE PROMPT



- Arc = "Grow, 30 years from now"
- Terrain = Education
- Object = Postcard
- Mood = Excitement

This prompt asks players to come up with ideas for a postcard from 30 years in the future, in a world where continued growth is the defining characteristic. The postcard should somehow reflect the Terrain (theme, context) of Education, and the Mood that the object might evoke in an observer should be one of excitement.



Source: Candy, S. (2018). Gaming Futures Literacy: The Thing from the Future. In R. Miller (Ed.), Transforming the future: Anticipation in the 21st century. Routledge Taylor & Francis Group; Situation Lab. The Thing From The Future.
<http://situationlab.org/project/the-thing-from-the-future/>

Exercise:	Futures Wheel
Used in which part / session of the course:	Implementation phase
Main goal of the exercise:	Exploring some "what if" scenarios which match to respective sectors
Best used with:	Max. 20 participants; in groups of 2-4 people (15 minutes)

Short description of the exercise

Complete one or more Futures Wheel(s) about a "What if"? from your topic.

1. Start with the "What if"? questions you chose. Ask yourself what might happen next. Working with your group, come up with 3-4 possible consequences and write each one in a bubble that connects to the center.
2. Then ask yourself what happens as a result of the first set of consequences? Write those consequences in another layer of bubbles.
3. Continue until you have at least four layers of consequences. Remember to add positive and negative consequences in one branch. To check yourself, write – or + and the related STEEP category next to each bubble.
4. Choose the consequences you think are most interesting or represent the biggest change from the future you originally imagined.

Source: King, K., & West, J. R. (2018). Futures Thinking Playbook.

<https://issuu.com/wtforesight/docs/futuresthinkingplaybook-final> (page 100f.) - you can find an example on page 103;

Bengston, D. N., Westphal, L. M., & Dockry, M. J. (2020). Back from the Future: The Backcasting Wheel for Mapping a Pathway to a Preferred Future. World Futures Review, 12(3), 270-278. <https://doi.org/10.1177/1946756720929724>

Exercise:	Your preferred future
Used in which part / session of the course:	Implementation phase
Main goal of the exercise:	Discussing different desirable futures among the group members
Best used with:	Max. 20 participants; in groups of 2-4 people (15 minutes)

Short description of the exercise



You have a sense of the different futures you and others imagined. Now it's time to think about your own preferences and opinions about these futures.

1. Compare your notes to others in your group. Choose one future that several people believed was most likely.
2. Discuss with your group:
 - What makes this future probable?
 - What about this future seems positive? Is it positive for everyone or just for some?
 - What about this future seems negative? Is it negative for everyone or just for some?
 - Overall, would you like to see this future come about?
3. Choose one future that several people believed was preferred.
4. Discuss with your group:
 - What makes this future preferable?
 - What about this future seems positive? Is it positive for everyone or just for some?
 - What about this future seems negative? Is it negative for everyone or just for some?
 - Overall, why would you like to see this future come about?
5. Individually, think about your group's discussion. What's one thing you would like to see happen in the future?
6. Individually, write down one thing you would like to stop from happening in the future?

Source: King, K., & West, J. R. (2018). Futures Thinking Playbook.

<https://issuu.com/wtforesight/docs/futuresthinkingplaybook-final> (page 118f.)

Exercise:	Backcasting
Used in which part / session of the course:	Implementation phase
Main goal of the exercise:	Identifying steps to realize your future
Best used with:	Max. 20 participants; in groups of 2-4 people (15-20 minutes)
Short description of the exercise	
<p>As backcasting is a method for planning the actions necessary to reach desired future goals, this method is often applied in a workshop format with stakeholders participating.</p> <p>These could be possible tasks:</p> <ul style="list-style-type: none"> • List down your long-term goals. Think of a time frame between 1 and 20 years. • Work backwards to figure out the necessary actions to achieve the long-term goal. Step by step. 	



- Collect insights over difficulties that might be encountered, steps that need to be taken and resources needed to achieve the goal.

Source: Source: Robinson, J. (2003). Future subjunctive: backcasting as social learning. *Futures*, 35(8), 839-856; Phdungsilp, A. (2011). Futures studies' backcasting method used for strategic sustainable city planning. *Futures*, 43(7), 707-714.

Exercise:	Hero for the future manifesto
Used in which part / session of the course:	Implementation phase
Main goal of the exercise:	Describing a desirable future and its implementation through different objects and action steps
Best used with:	Individual exercise (10 minutes)

Short description of the exercise

Choose two objects from the exercise "The Thing from the Future". Complete the following story, using your knowledge about what you've learned about the future, your integrity to think of others, your courage to take action, and your sense of humor to create a hero's journey! Imagine that you have reached your future goal and are looking back at the path you took.

I am a hero for the future! My name is _____ and I am here to take a stand. Today, it is the year _____, and we have achieved _____ (description of preferred future). It wasn't easy! I had to stand up for _____ (what you took a stand for in last play). I faced many obstacles such as _____ (obstacle to achieve the preferred future). Thankfully, I had my _____ (imaginative use for Object #1) to help me along the way. My first step was to talk to _____ (person who can influence the future that you can access) and persuade them to _____ (action step). Then, I had to travel to _____ (location) and _____ (action step). I had no idea I would run into _____ (obstacle) and have to _____ (imaginative use for Object #2) finish my journey. In the end, I was able to _____ (final action step!).

Gather the entire group or small groups together and have everyone perform their stories, getting into the role of the hero for the future!

Source: King, K., & West, J. R. (2018). *Futures Thinking Playbook*.
<https://issuu.com/wtforesight/docs/futuresthinkingplaybook-final> (page 126f.)

Exercise:	Reflect on the future
Used in which part / session of the course:	Implementation phase
Main goal of the exercise:	Contemplation on the future
Best used with:	Individual exercise (10 minutes)



Short description of the exercise

1. Write three things you could do today or in the very near future to bring about your preferred future.
2. Who seems to have a lot of control over whether or not your preferred future happens? Do you have any influence over that person or people? How might you gain more influence?
3. Complete this sentence: Thinking about the future is _____.

Source: King, K., & West, J. R. (2018). Futures Thinking Playbook.

<https://issuu.com/wtforesight/docs/futuresthinkingplaybook-final> (page 134f.)

Exercise:	LEGO® Serious Play® Workshop (2x90mins)
Used in which part / session of the course:	Implementation (or visioning) phase
Main goal of the exercise:	Creating and realizing/building your future scenario
Best used with:	Max. 20 participants; individual exercise or in groups of 2-4 people

Short description of the exercise

1. Build a duck in 30 seconds and then show it to the rest of the group
2. Warm Up (Technical skills, metaphors, storytelling):
 - Task 1: Build a tower. Integrate yourself in your model (4 min. building / 1 min. sharing per participant)
 - Task 2: Connect 5 of your LEGO® bricks in a completely random and meaningless way in 30 seconds (1 min. sharing per participant)
 - Task 3: Build a model that shows the vacation of your dreams. (5 min. building / 1 min. sharing per participant)
3. The individual model: Think about the industry sector you have chosen. Build a model that shows your UNSustainable Utopia of your chosen industry in 2030. (5 min. building / 1 min. sharing per participant)
4. The individual model: Build a model that shows the sustainable Utopia of your chosen industry in 2030. (5 min. building / 1 min. sharing per participant)