OPTIMIZING ONLINE AND OFFLINE LEARNING

A blended learning design Toolbox

TOOLBOX OVERVIEW

WHAT IS A TOOLBOX?

According to the dictionary a Toolbox /ˈtuːlbɒks/ is defined as **"a box or container for keeping tools in"** or when related to computing as **"a set of programs or functions accessible from a single menu".** This blended learning toolbox aims to provide instructors with all the tools necessary to build successful blended learning programmes.

HOW THIS TOOLBOX WAS DESIGNED

This Toolbox is a collaborative project between **DECP** and **Maastricht University**'s Learning and Development in Organisations Masters programme. The toolbox came together with the help of **various experts in the field of training, learning and development**.
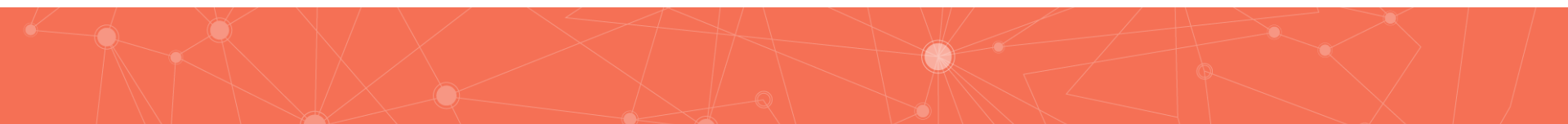
WHY THIS TOOLBOX?

With the outbreak of the COVID-19 pandemic, **everyday life has changed all over the world**. Social distance emerged to stop the spread of the virus, forcing institutions to experience a shift from physical to digital, a transition shaped by technological and organisational challenges.

Within a few months, the world of meeting, discussing, exchanging ideas, teaching and learning has undergone a digital transformation that has enabled organisations to discover the world of blended learning.

Reducing travelling time and costs promises considerable gains in productivity, efficiency, and sustainability, offering new opportunities that may be acknowledged, ingrained, and sustained even after the pandemic.

Blended learning is here to stay, now is the time to reap the benefits that blended offers and this Toolbox is here to help you.

USER GUIDE

GAIN IN-DEPTH INSIGHTS

This toolbox is part of a larger project and **connects to an in-depth scientific report** that offers further information, instruction and advice related to each of the topics mentioned.

The toolbox is **actionable and implementable advice for practitioners**, whereas the larger report and the interviews and surveys conducted provide the background for this advice. The detailed scientific report can be **consulted at any time** to provide **evidence-based support** for the suggestions made in the toolbox

Click here to find the in-depth report

HOW TO USE THIS TOOLBOX

To ensure **easy, immediate and practical application of the toolbox**, it consists of four main parts:

1. Optimizing Learning

2. Blended Learning Dimensions

3. Designing Blended Learning

4. Dealing with Limitations and Challenges

Finally we provide **7 action steps** to consider for blended learning that we found throughout talking to our experts and creating the in-depth report.

We **encourage you to use this report to your specific needs** by diving directly into the actionable advice that you are looking for and/or reading more elaborate findings and guidance in the overall report.

TOOLBOX OVERVIEW

1 OPTIMIZING LEARNING

- THE WHY OF LEARNING
- THE HOW OF LEARNING

2 BLENDED LEARNING DIMENSIONS

- OFFLINE & ONLINE LEARNING
- SELF-DIRECTED & COLLABORATIVE LIVE LEARNING
- STRUCTURED & UNSTRUCTURED
- CUSTOM & OFF-THE-SHELF CONTENT
- PRACTICE & PERFORMANCE SUPPORT

3 DESIGNING BLENDED LEARNING

- PROGRAMME DESIGN CONSIDERATIONS
- PROGRAMME EVALUATION MODEL
- CHOOSING YOUR DELIVERY METHOD

4 DEALING WITH LIMITATIONS AND CHALLENGES

- TECHNOLOGY
- CONTENT
- SOCIAL

5 7 ACTION STEPS

The best insights from research and practice

PART #1

Optimizing Learning

OPTIMIZING LEARNING: THE WHY

Before we can dive deeper into the how and the what of blended learning, we need to consider the **WHY**. If a trainee truly knows **why they learn and why it is essential to pay attention**, be curious and implement the learned knowledge, **then the foundation is set up**.

So how can you do this?

#1 START WITH WHY

Involving the manager of the learner by having them create a video or write a short text to open up a conversation about the **importance and purpose of the training**.

Send trainees into breakout rooms at the beginning of the training and **write down the reasons for joining this training** on 3 levels:

- **Themselves**
- **The company**
- **Their clients**

#2 FOSTERS INTRINSIC MOTIVATION

Autonomy: Give trainees choice on **what to focus on during the training** - be flexible and **focus on their needs**

Competence: Give them **the right amount of challenge** and provide them with frequent and constructive feedback

Relatedness: Make sure trainees **connect within the group** and bond and **make it fun!**

OPTIMIZING LEARNING: THE HOW

After considering **WHY** people learn, it is important to know **HOW** people learn best in order to support them in the learning process

Hint: Brain science can help!

Neuroscientific principle	Implications for learning	Practical examples
Neuronal connections become stronger with repetition	Provide opportunities for retrieving what was learned	Space out the training sessions Use deliberate practice: set goals and offer feedback Use "learning nuggets"
Memories are stored in different physical locations in the brain	Engage the senses Build on previous knowledge to form stronger associations	Use various learning methods: workshops, real life-cases, coaching, learning applications, quizzes, role-play Link assignments with the learners' interests, profession, current topics
Emotions strengthen memory	Appeal to and engage emotions while learning	Create psychological safety during your training/courses by fostering a positive, nurturing climate Show interest in your learners and offer opportunities for questions
Attention is limited	Offer space for reflection, discussion and breaks	Make learning easy to digest through chunking, visuals and stories

# PART #2

Blended Learning Dimensions

BLENDING OFFLINE AND ONLINE LEARNING

Explanation

This dimension combines offline and online components. Here, online learning usually takes place via "the internet or intranet" while offline learning is conducted in a more traditional classroom environment.

Example for implementation

Learning materials and resources could be provided via the Internet but discussed during a guided face-to-face training session. It could also simply be a mix of online and offline sessions, with the material still more likely to be provided online.
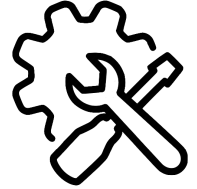
TOOL EXAMPLES

Offline:
- Instructor-led Classrooms & Lectures
- Hands-on Labs & Workshops
- Field Trips

Online:
- Online Meetings
- Virtual Classrooms
- Web Seminars and Broadcasts
- Coaching
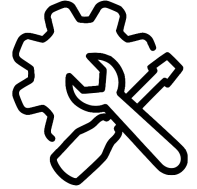- Instant Messaging
- Conference Calls

BLENDING SELF-DIRECTED AND COLLABORATIVE LIVE LEARNING

Explanation

Self-directed learning implies that the pace of learning is controlled or directed by the learner. Collaborative learning, on the other hand, aims at knowledge sharing by having a more dynamic communication between numerous learners.

Example for implementation

The mix of self-directed and collaborative learning may include, for example, the provision (online or physically) of materials and resources. Learners shall then study the material and resources provided. Afterwards, a live online peer-to-peer discussion takes place about the material's application to the learner's (and their clients') work environment.

TOOL EXAMPLES

Self-directed learning:
- Documents & Web Pages
- Web/Computer based Training Modules
- Simulation
- Recorded Live Events

Collaborative live learning:
- Online Meetings
- Virtual Classrooms
- Web Seminars and Broadcasts
- Coaching
- Instant Messaging
- Conference Calls

BLENDING STRUCTURED AND UNSTRUCTURED LEARNING

Explanation

Much learning tends to take place informally in unstructured ways (e.g., meetings, hallway conversations or via email). This is because not all forms of learning need to be sequenced like chapters in a textbook, and thus require a pre-planned, structured or formal learning programme with organised content.

Example for implementation

A mixed programme design of both structured learning and unstructured learning can involve structured learning session as mentioned in other dimension but also actively capture conversations and documents from unstructured learning events in (online) knowledge repositories. These in turn should be available and can be retrieved whenever needed.
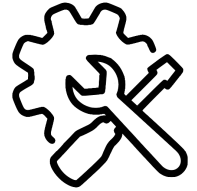
TOOL EXAMPLES

Structured learning (offline or online):
- Instructor-led Classrooms & Lectures
- Hands-on Labs & Workshops
- Virtual Classrooms
- Web Seminars

Unstructured learning:
- Online (Learning) Communities
- Discussion Forums

BLENDING CUSTOM CONTENT WITH OFF-THE-SHELF CONTENT

Explanation

Standard content is by definition universal, does not take into account a unique context, is much cheaper to purchase and often has a higher production value. Standard content for self-study can be completed with live sessions (in the classroom or online) or/and with customisation of content.

Example for implementation

Material and resources for (training) sessions that may consistently be reused (are standard) could be made available in an online portal, giving the learner access whenever required. These standard components can then be reinforced with customised materials, concerning a specific context.
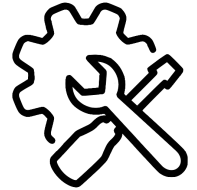
TOOL EXAMPLES

Standard content for self-study:
- Documents & Web Pages
- Recorded Live Events
- Simulation

Custom content (offline or online):
- Instructor-led Classrooms & Lectures
- Workshops
- Online Meetings
- Virtual Classrooms
- Coaching

BLENDING LEARNING, PRACTICE AND PERFORMANCE SUPPORT

Explanation

Perhaps the most delightful form of blended learning is to supplement learning with practice and achievement assistance tools that facilitate the appropriate performance of tasks.

Example for implementation

In this blended learning dimension, learning is practised through real-life examples or simulations, and supported by tools that complement the previously learned and practised task to facilitate the execution.
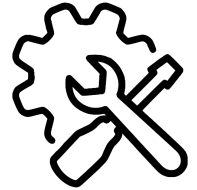
TOOL EXAMPLES

Standard content for self-study:

- Web/Computer Based Training Modules
- Recorded Live Events
- Simulation
- Job Aids & Electronic Performance Support Systems (EPSS) *

*for more information, see e.g. Maughan (2005).Electronic Performance Support Systems and Technological Literacy, The Journal of Technology Studies

PART #3

Designing Blended Learning

KHAN'S FRAMEWORK

Badul Khan's octagonal framework (2005), represents a magnifying glass suggesting eight main factors to consider when setting up your blended learning programme

Institutional
- Can the organization manage offering each trainee the learning delivery mode independently as well as in a blended program?
- Has the needs analysis been performed in order to understand all learners' needs?

Pedagogical
- This part of the framework refers to anything related to teaching and learning. It encompasses content analysis, audience analysis and goal analysis.
- **How are the learners' needs and learning objectives related to the chosen delivery method?**

Interface Design
- Considers the design of the learning environment and how the different elements of the programme work together.
- **Do the different elements work together well? Are they interconnected? How does one element of the blended programme follow up on another?**

Technological
- Examines all issues related to infrastructure in learning environments, with digital tools opening up new learner experiences.
- **Less is more:** **How can technology help you support the learners with reaching their learning goals?**

KHAN'S FRAMEWORK

CONTINUED..

4.
ORGANIZATIONAL
PERFORMANCE

3.
BEHAVIOURAL
CHANGE

2.
LEARNING

1.
REACTION
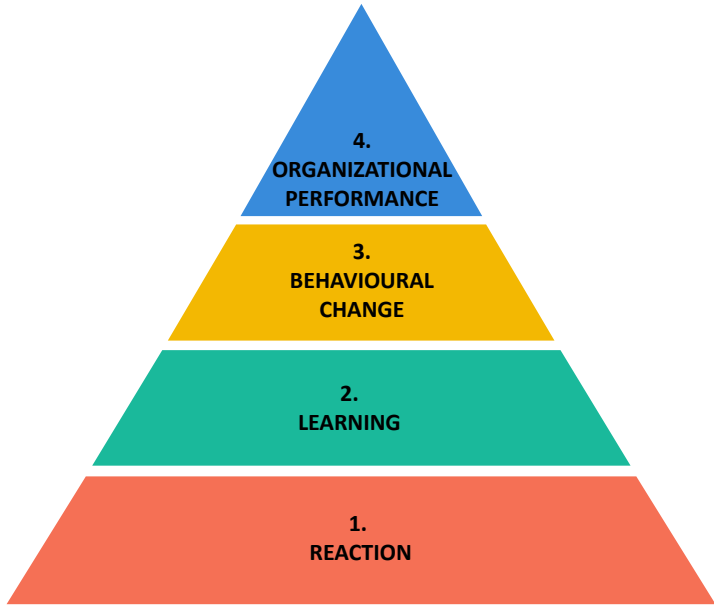
Evaluation: The **Kirkpatrick model**, more information on the following page.

Evaluation

• No learning programme is complete without taking the time to properly evaluate the outcomes and effectiveness of the learning.

• **Kirkpatrick's evaluation model:** Individual learners' learning reflection & evaluation
• **Feedback collection:** Evaluation of the instruction, delivery methods and learning environment

Management

• Relates to firstly the management of the learning environment and secondly the informational management of the learning programme.

• **How can you reach outside of the classroom and involve managers or team members in the learning programme and encourage both learners and their environments to instil their learnings?**

Resource Support

• Considers how information regarding the programme is managed and distributed to the learners and how oversight can be ensured.

• **How will you be communicating with the learners throughout the programme? How can you provide the best learner support?**

Ethical

• refers to any ethical issues that might need to be addressed when designing the programme such as equal opportunity, cultural and geographical diversity, learner diversity, information accessibility, bias and social and political influence.

THE KIRKPATRICK MODEL

Developed by Donald Kirkpatrick, the **Kirkpatrick** model consists of **four levels of evaluation criteria** for training programs and is often applied to evaluate training in organizations.

Level 4: results, measures **the impact of the training on the business level**, organizational objectives & return of investment

Level 3: behaviour, measures **to what extent the learning is applied on the job** and influences the learner's behaviour

Level 2: learning, is related to learning measures, such as **how much information was acquired**, through, for example, self and peer assessments

Level 1: reaction, refers to **the participant's reaction to the training program** if the learners liked the training and how satisfied they were with the instructor

4. ORGANIZATIONAL PERFORMANCE

3. BEHAVIOURAL CHANGE

2. LEARNING

1. REACTION

CHOOSING YOUR DELIVERY METHOD

Blended learning can consist of **multiple delivery methods** related to **different learning dimensions** and objectives.

Options of blended learning stretch far beyond the traditional classroom as you can see in the table here. *But how do you choose the right one?*

Check the next page for support!

Live face-to-face (formal) • instructor-led classroom • Workshops • Coaching, mentoring • On-the-job training (OTJ)	**Live face-to-face (informal)** • Collegial connections • Work teams • Role modeling
Virtual collaboration (synchronous) • Live e-learning classes (e.g. Zoom, MS Teams.) • E-mentoring	**Virtual collaboration (asynchronous)** • Email • Online bulletin boards • Listservs* • Online communities
Self-paced learning • Web learning modules (e.g. LMS) • Online resource links • Simulations • Scenarios • Video and audio files (e.g. YouTube videos, or Podcasts) • Online self-assessments (e.g. MBTI or DISC) • Workbooks	**Performance support** • Help systems • Knowledge databases • Documentation • Performance & decision support tools

CHOOSING YOUR DELIVERY METHOD

To decide which learning content to use in your blended learning programme consider the following dimensions of your learning programme;

Stability: Will this content last for one or two years? Will there be changes within days or weeks?

Urgency: Does the program need to be up and running within five days or will there be several months to design and develop assets for the blend?

CONTENT STABILITY

Stable

Workbooks
Documentation
Online help systems (independent)
Live e-learning (archived)
Collegial connections
Role modeling

Work teams

Workbooks
Documentation
Online help systems (integrated)
Simulations
Scenarios
Workshops
Web learning models
Video & Audio (self-produced)
Performance/decision support tools)

Work teams
Online resource links
On-the-job training (OTJ)
Online self-assessments
Listservs
Online bulletin boards
Live e-learning (events)
Email
Coaching
Online knowledge databases

Online communities
Live e-learning (classes)
Mentoring
E-mentoring

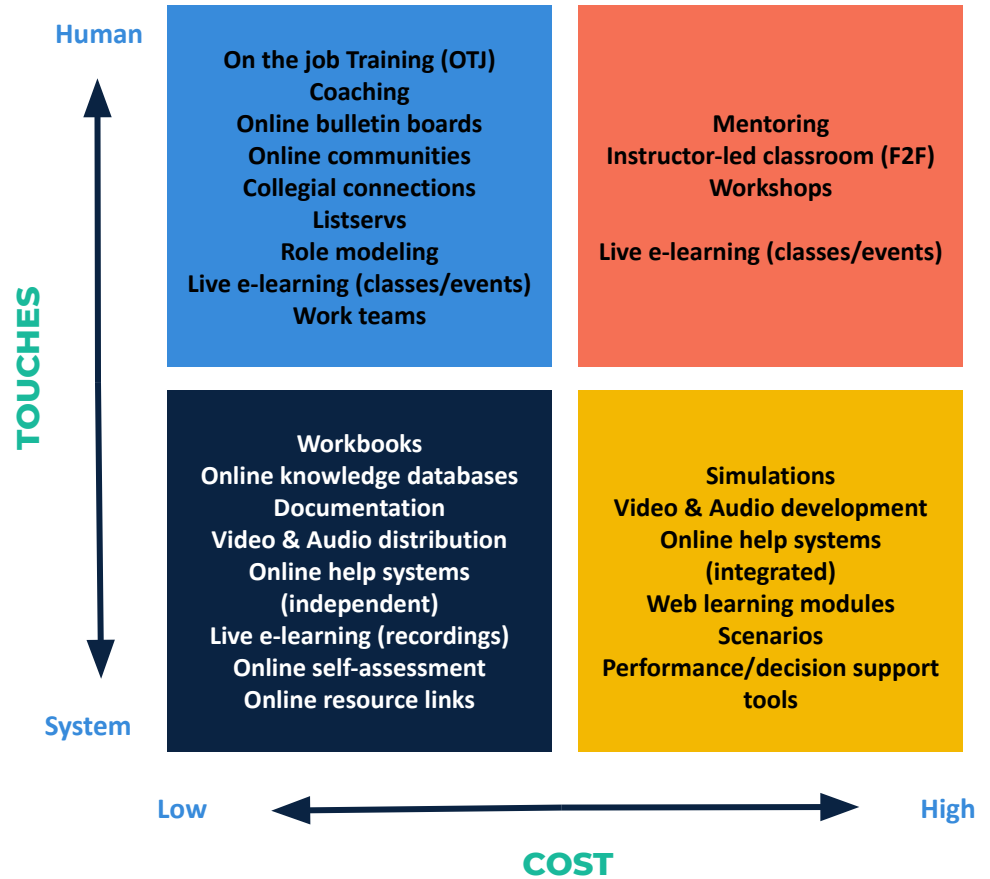**Volatile**

Short ⟷ **Long**

TIME TO IMPLEMENT / DEVELOP

CHOOSING YOUR DELIVERY METHOD

To decide which learning content to use in your blended learning programme consider the following dimensions of your learning programme;

Touches: Is human interaction essential or will technology suffice?

Cost: How much is the organization or individual willing to invest in achieving specific outcomes?
If the outcomes aren't achieved, is the situation critical?
If the blended program is successful, what kinds of benefits will you collect?

Human

TOUCHES

On the job Training (OTJ)
Coaching
Online bulletin boards
Online communities
Collegial connections
Listservs
Role modeling
Live e-learning (classes/events)
Work teams

Mentoring
Instructor-led classroom (F2F)
Workshops

Live e-learning (classes/events)

Workbooks
Online knowledge databases
Documentation
Video & Audio distribution
Online help systems
(independent)
Live e-learning (recordings)
Online self-assessment
Online resource links

Simulations
Video & Audio development
Online help systems
(integrated)
Web learning modules
Scenarios
Performance/decision support
tools

System

Low　　　　　　　　　　　　　　　**High**

COST

CHOOSING YOUR DELIVERY METHOD

To decide which learning content to use in your blended learning programme consider the following dimensions of your learning programme;

Learning resources: How will your learners be using the learning resources? Will learning materials be delivered and quickly disappear or will they be available long term and future reference?

Experience: Will learners work alone on the job or at a home office, train, or plane? Will learners engage with others in their attempt to learn and improve performance?

LEARNING RESOURCES

Extensions

Coaching Mentoring E-Mentoring Listservs Online bulletin boards Online communities Collegial connections Role modeling Email Live e-learning (events) Work teams	Printed job aids Online help systems Performance/decision support tools Web modules before classroom Online resource links Online self-assessments Ive e-learning (archived) Online knowledge databases Documentation
Live e-learning (classes) Instructor-led classroom Simulations (live) On-the-job training (OTJ) Workshops	Documentation Workbooks Simulations (online) Video & Audio Scenarios Web learning modules

Instruction

Social ⟷ **Independent**

EXPERIENCE

PART #4

Dealing with Limitations and Challenges

TECHNICAL CHALLENGES

> *"Focus on content and use online parts as tools to reach the goal"* (Kelly Geyskens, Maastricht University)

#1 KEEP IT SIMPLE

Don't use too many different tools. Put yourself in the position of the learner and think out of the perspective of someone who has never had an online training. Use technology to achieve the learning goal, but don't focus too much on it and keep it simple.

#2 USER-FRIENDLINESS

Some people might be overwhelmed by the technology and different tools used. Therefore, **provide a "*How-to-use*"-Guidelines** enabling everyone's understanding of the different tools. Moreover, providing such guidelines will result in less questions being asked about the usability.

#3 ENSURE INTERNET CONNECTION

Sometimes the internet connection is prone to not working well. Poor internet connection distracts the learning experience (for teachers and learners). By **providing an *"Internet key"*** you can ensure that no one misses online sessions and gets interrupted on their learning process.

CONTENT CHALLENGES

"Hold the learners' hand" (Telekom)

#1 BE CLEAR AND PRECISE

Communication is key. Particularly in the online environment, it is even more important to be very clear about the content. Accordingly, the different components, materials provided and next steps should always be explained.

#2 IDENTIFY LEARNERS NEEDS

Ask question. To ensure that everyone is on the same page, following and comprehending the content, you should frequently ask questions about experiences and understanding of the context. Also at the end of the session it may be useful to ask if anything is still unresolved.

Tip! Let learners ask questions via the chat, they usually feel more comfortable phrasing the questions rather than saying them out loud.

SOCIAL CHALLENGES

#1 Get to know each other

Take the time to get to know each other. Teachers have an important role to play. Giving activities at the beginning, middle and end of the program to ask participants to introduce each other, especially in a small group setting.

#2 Keep everyone engaged

• Start the learning session with an energiser, promoting relationships with and between participants. Further, **use interactive tools** (e.g. Kahoot, Mentimeter, etc.) throughout the learning sessions to sustain the learners' attention at all times.

• To encourage learners to participate and ensure they are following the content, it proves helpful to **ask questions frequently**. Ask questions at the beginning, in between or at the end of the session.

• Introduce recurrent **reflections and feedback sessions** as part of the assessment process. In addition, ensure that feedback and reflections are followed up to enable constructive implementation in practice.

• Take into account **small group session** as it will be easier to respond to and address the individual needs of people. Besides, it proves to be more effective to establish relationships with and between learners

• To **facilitate collaboration** between learners, ask participants to *turn on the camera.* In addition, by conducting *group assignments*, you can strengthen collaborative work further.

7 ACTION STEPS

The best insights from research and practice

1 START WITH WHY

• Trainees need to develop a strong understanding of **why it is crucial to learn**. If the why is communicated and understood, the how is easy.

• Collect reasons why the training is necessary and what the possible effects are on three levels: **the individual learner, the organization and the clients or the greater society**.

• Connecting with your learners' why at the start of the training will allow you to **target their intrinsic motivation** which will in turn optimize their learning.

2 SET YOUR OBJECTIVE FIRST

• A first step in designing blended learning activities is to **define the learning objective**.

• Once this is done, **other components must be chosen in accordance with the learning objective** (e.g.: Activities, assessment etc.).

• **So, what do you want the learners to learn?** And how do the other components match that objective?

3 INVOLVE LEARNERS AND MANAGEMENT

• **Involve the learners in the process of didactic conception.** Asking learners about their needs and preferences, and taking those into account is valuable for finding the right blend, and for ensuring a learner-centered training.

• **Contact the organisation's management to discuss how it understands the subject to be trained.** How does management define the subject? What are the status quo and current challenges? What is the role of training at the moment?

• **Provide management with supporting information in the form of learning content** (e.g. emails, weblinks or modules).

4 MAKE IT A JOURNEY

• **Learners must be activated before, during and after the training sessions.** Providing assignments, learning nuggets or coaching turns training into a real learning journey by splitting the content into various activities.

• **The use of Apps** allows the learners to get short learning nuggets to help them better absorb the theory, set goals and fulfil short interactive assignments.

• **Spread out your learning goals over a longer period of time** and focus on only one goal or skill in each time frame. This way learners get the chance to go more in-depth and build a deliberate practice.

5

MAKE IT FUN

• Training should allow the learners to **escape stress** at work and dive into an **inspiring learning space that focuses on creativity and development** instead of finding themselves back at school.

• **Ensure a fun, engaging and exciting learning experience** by using online tools such as Kahoot! during your sessions, using gamification when building online learning environments, or simply enter the room with a **light-hearted attitude**, throw in a joke and share a loving smile.

6

LESS IS MORE - REDUCE TECHNOLOGY

• **Integrating too much technology may impede the learning process**, as both learners and instructors may be too concerned about dealing with the technology.

• The right technology must be chosen carefully, and clear instructions provided to ease the handling for instructors and learners. Keeping the learning goal in mind is key. **Less is more!**

• Consider **integrating your digital learning platform** with the technologies that your learners are already used to and working with on a regular basis.

7

TRAIN YOUR TRAINERS

• In order to be successful in applying online or blended content as part of your learning programme, one needs to be **flexible**, stay **open-minded** and sometimes be a little **creative**.

• Organisations must work towards a **shift in the mindset of instructors** and prepare instructors for their new role by providing **train-the-trainer workshops**. Allowing them to become the ultimate learning companions!

CONTRIBUTORS

Meiki Zeidler, Nina Joustra, Charlotte Nöthel, Daniela Bocmaru, Alessandra Leclercq, Marco Sander & Jos van Erp