Mobile Learning Design Guide

Preamble

Mobile learning is not a replacement for traditional learning methods or e-learning courses. More often, mobile learning can supplement and reinforce traditional or formal learning events with informal learning content.

It has been commonly accepted that only about 10 percent of learning is through formal education-based learning interventions, and the rest is through informal channels. Although mobile devices can be used in formal training, their actual usage for learning tends to defy the class/course mind-set.

This is because the content accessed by mobile learners tends to be more immediate, relevant, personalized, and ad hoc in a setting where learner are often highly dispersed and connected. That approach supports the idea that knowledge can be acquired continuously from content that is created and/or shared by anyone and from anywhere.

This "Mobile Learning Design Guide" is primarily aimed at instructional designers and subject matter experts.

About mobile learning

✓ What is mobile learning?

Mobile learning allows employees to access networked mobile technology for learning and performance in a just-in-time, just-in-place context no matter where they are physically located. Mobile learning is used to help people perform more effectively and efficiently, and to align with the needs of the business.

✗ What mobile learning is NOT

Mobile learning is not a version of e-learning. e-Learning is simply electronically delivered learning material with an emphasis on online delivery (historically via desktop or laptop).

Organizations looking to simply "lift and shift" e-learning content from a desktop environment to a mobile learning device may miss the opportunity to truly take advantage of the uniqueness of the mobile learning experience.

What do I use mobile learning for?

Instructor-led training and traditional self-paced e-learning often take the learner out of the context of the work itself and the topic being studied or searched. Organizations should look for opportunities to expand/vary the way learning experiences are accessed while keeping in mind that some learning activities are well suited for mobile learners.

Learning activities well suited for mobile learning

- Just-in-time performance support
- Social networking
- Retrieving, gathering, and analyzing information

- Communication
- Search and reference
- Location-based activities

Application areas for mobile learning

Various types of mobile learning solution can be developed. Analysis of the content drives the type of solution that will work best for your training need.

Short learning modules

Bite-size chunks in the context of learning, education and training. In other words, learning modules that are short and to the point, used for disseminating specific information on technologies, standards, methods, tasks, or concepts.

Videos and Podcasts

Videos are a good way to learn new concepts, facts, "how-to's," etc. While podcasts are digital audio files which can be made available episodically on various topics.

Quizzes and surveys

Quizzes help to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of learners. While surveys are used to collect audience opinion.

Reference materials

Any form of content, such as blogs, discussion forums, posts, podcasts, digital images, video, audio files, advertisements and other forms of media that is created by users of an online system or service, often made available via social media websites. Mobile devices are capable of delivering and consuming user-generated content.

Application areas for mobile learning

It is becoming clear that the responsibility for (and control of) learning is shifting, and mobile learning offers a unique opportunity for L&D to better support informal learning by marrying the "anytime, anywhere" construct and technology:

Performance support

- Point-of-need learning that helps employees do their jobs more effectively and efficiently

Coaching

- Real-time feedback from a coach on a learner's performance, whether it was a short training exercise or a recent task

Pre and post-training materials and assessments

- Supplemental learning materials to prepare learners for a course
- Assessments to determine the impact / effectiveness of a course

Enhancing Learning Transfer

- Reminders of main learning points delivered via short videos or interactions
- Gamification can be incorporated in exercises to increase engagement

Augmented reality

- Technological tool that adds visual content based on what the learner is viewing at the moment, providing contextual learning information

Business drivers

There are **two major drivers** behind mobile learning's momentum.

- **The nature of work has changed**.
  No longer are knowledge workers tethered to their desks. Instead, they find themselves working at home and at client sites, on planes and trains, and even in the coffee shop down the street. Their growing mobility makes it necessary to create learning environments that are also mobile.

- **The modern learner has different expectations, needs, and habits from learners of even five years ago**.
  Many workers are distracted and overwhelmed; the average knowledge workers only devote about 1 percent of their workweek to training. This means that learning assets must be small, so they are manageable in short periods of time, engaging, and accessible from just about anywhere and around everything else workers are asked to do.

Business drivers

To ensure the effectiveness of mobile learning, you should use it strategically by aligning it to your audiences' needs, including the appropriate contexts for delivery. **It is not about supporting a mobile device, but rather a mobile employee—a mobile learner.** Whether employees are stationary at a desk or mobile on the sales floor throughout the day determines if and how mobile applications can be of value to them.

Business drivers

Some of the business drivers of mobile learning that drive adoption are:

Quick training

There is always a need for more frequent and/or just-in-time training on new procedures, strategies, technologies, and market and industry changes.

While mobile learning can take time to design, develop, and deploy, it will take considerably less time when compared with traditional content design and delivery.

Fit with learner characteristics

The use of mobile devices to consume content has substantially increased in the recent years.

To remain relevant to the way we interact with our mobile devices, learning professionals must provide content up-to-date with current mobile learning trends.

Flexibility

With high demand for professionals' time on client and internal engagements, there is limited time available for training.

Estimates show that the typical professional has less than 10 minutes to spend on learning each week.

Often learning has to be done on the go and outside the work environment. Mobile learning provides the flexibility to better use time for learning.

Infrastructure

The widespread adoption of mobile technologies means that the infrastructure for mobile learning is already in place.

Key success factors

Mobile learning should not be viewed as a replacement for other learning options but as a supplement or reinforcement for learning and performance support. It should be an integral part of your core curricula.

Knowledge workers' growing mobility makes it necessary to create learning environments that are also mobile. Learning assets must be small, manageable in short periods of time, and accessible from just about anywhere.

For mobile learning to be successful, there are a number of key factors:

- Content must be **mobile friendly**:
  - Short duration
  - Appropriate subject matter
  - Responsive design
  - Thoughtful use of on-screen space

- Mobile learning is meant to **enhance** and complement existing learning options, **not replace** them.

- Learning professionals must resist the temptation to label existing e-learning as mobile learning. Although any content can be flagged as "mobile compatible", not all will yield a good user experience on mobile devices. Instead of flagging existing content as mobile, repurpose it to allow learners to access and consume **cognitive chunks of information**.
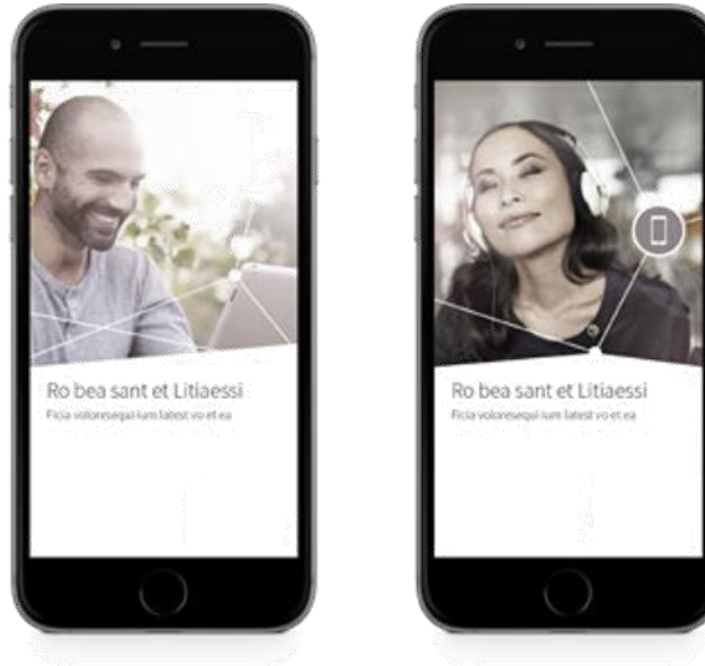
Modern learning means adaptive learning

A 21st century learning environment is **learner-centered**. All aspects of learning will be tailored to motivate, engage and inspire learners to achieve better results in a shorter time frame.

Learners can chose their own learning journey and select the preferred content presentation by choosing text, images or videos.

This presents the challenge of delivering the right learning journey for every learner, keeping the learning experience flexible, evolving, live and appropriate at all times.

Let's now take a look at some exemplary **scenarios** and the related **learning journey**:

1. *Foster my expertise*
2. *Learning offers for my team*
3. *Get information & training*
4. *Obtain new qualification*
5. *Get to know a new product*

Modern learning means adaptive learning

User Journey 1: Michael, Senior Engineer

Scenario: Foster my expertise

Example

Personal details

Age: 50 years old

Department: Research & Development

Time with company: 26 years

Salary: 110.000 € (GG11)

Challenges

"I have to work with digital tools, but I don't like them."

"I have to get used to new technologies in my private as well as business life."

Desires

- Get mandatory training done quickly
- Be up to date, current technology, e.g. congress, booklet
- Fast and easy information
- Stable working environment
- Acknowledgement (coach)
- Know-how transfer

Environment

- Was dynamic person when he joint the company
- Specialized job function
- Constant change
- New challenges
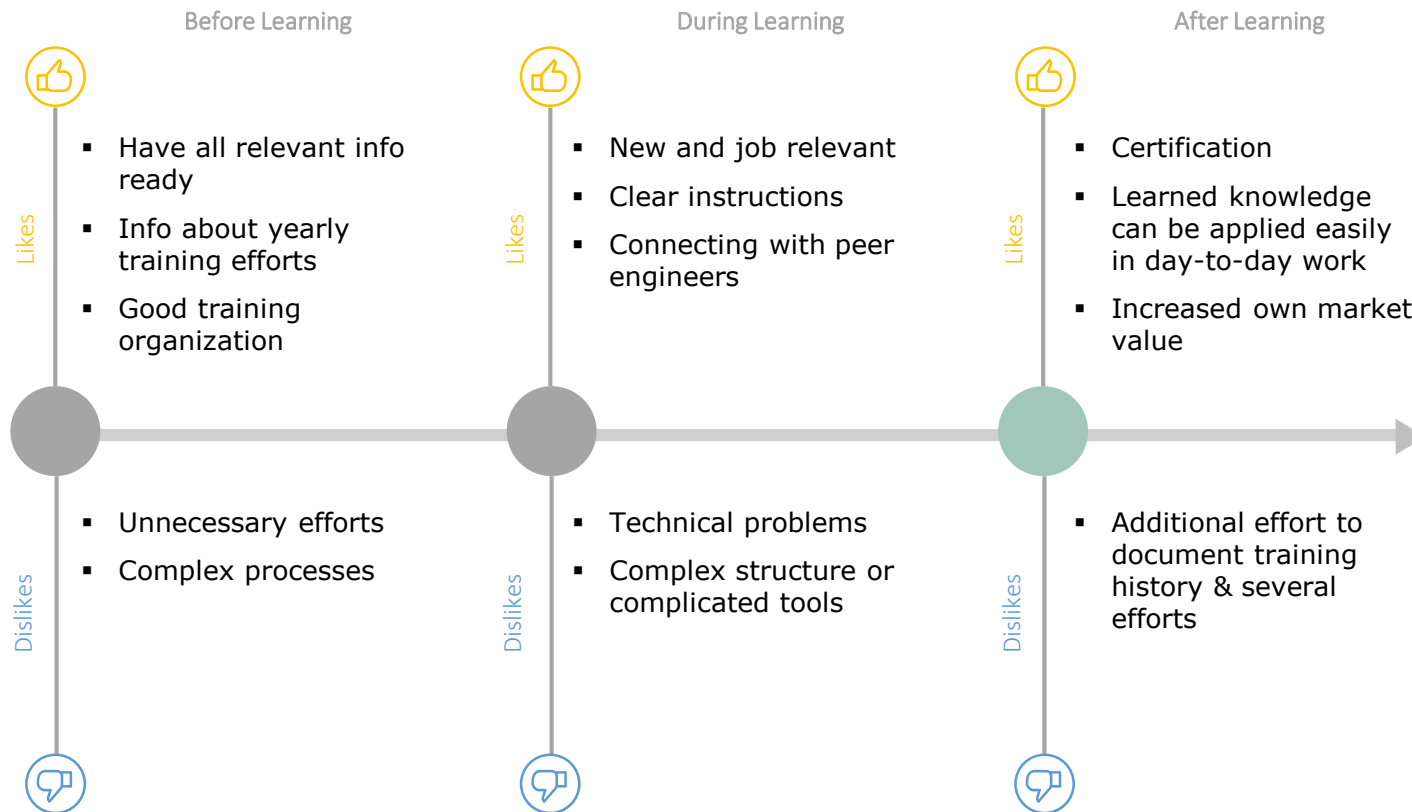
Modern learning means adaptive learning

User Journey 1: Michael, Senior Engineer

Scenario: Foster my expertise

Example

Before Learning

Likes

- Have all relevant info ready
- Info about yearly training efforts
- Good training organization

Dislikes

- Unnecessary efforts
- Complex processes

During Learning

Likes

- New and job relevant
- Clear instructions
- Connecting with peer engineers

Dislikes

- Technical problems
- Complex structure or complicated tools

After Learning

Likes

- Certification
- Learned knowledge can be applied easily in day-to-day work
- Increased own market value

Dislikes

- Additional effort to document training history & several efforts

Modern learning means adaptive learning

User Journey 1: Michael, Senior Engineer

Example

Scenario: Foster my expertise

Modern learning means adaptive learning

User Journey 2: Ann – Manager (Team Lead)

Scenario: Learning offers for my team

Example

Personal details

Age: 47 years old

Department: ATV

Role: Director, leading team of 25 employees

Time with company: 10 years (~10 years elsewhere)

Challenges

"I have only limited time slots available in my calendar."

"I don't know where to find training offers for my team and I don't have the time to search intensively."

Desires

- Have profiles / competencies for employees to quickly acknowledge gaps / opportunities
- Get easy access learning opportunities
- Don't want to be micro-managed
- Personal development and new ideas for her team

Environment

- External experience in other company, last 5 years as director
- Degree in U.S., foreign experience
- Knows well how to develop team
- Not likely to leave the company
- Lots of responsibility for team

Modern learning means adaptive learning

User Journey 2: Ann – Manager (Team Lead)

Scenario: Learning offers for my team

Example

Before Learning

👍

Likes

- Research internet & training catalogue
- "Amazon app" for learning (suggested content)
- Personal development and new ideas for the team

Dislikes

- Don't have a comprehensive catalogue to search in

👎

During Learning

👍

Likes

- Partly classroom
- Self guided part (on and offline)
- Conferences (for networking and best practices/ art of industry)

Dislikes

👎

After Learning

👍

Likes

- Easily applicable frameworks
- Easy feedback channel/ form
- Community to exchange
- Access to facilitator/ trainer (mentoring)

Dislikes

- Micro management of own boss
- No control of her learnings

👎

About mobile learning

Application areas for mobile learning
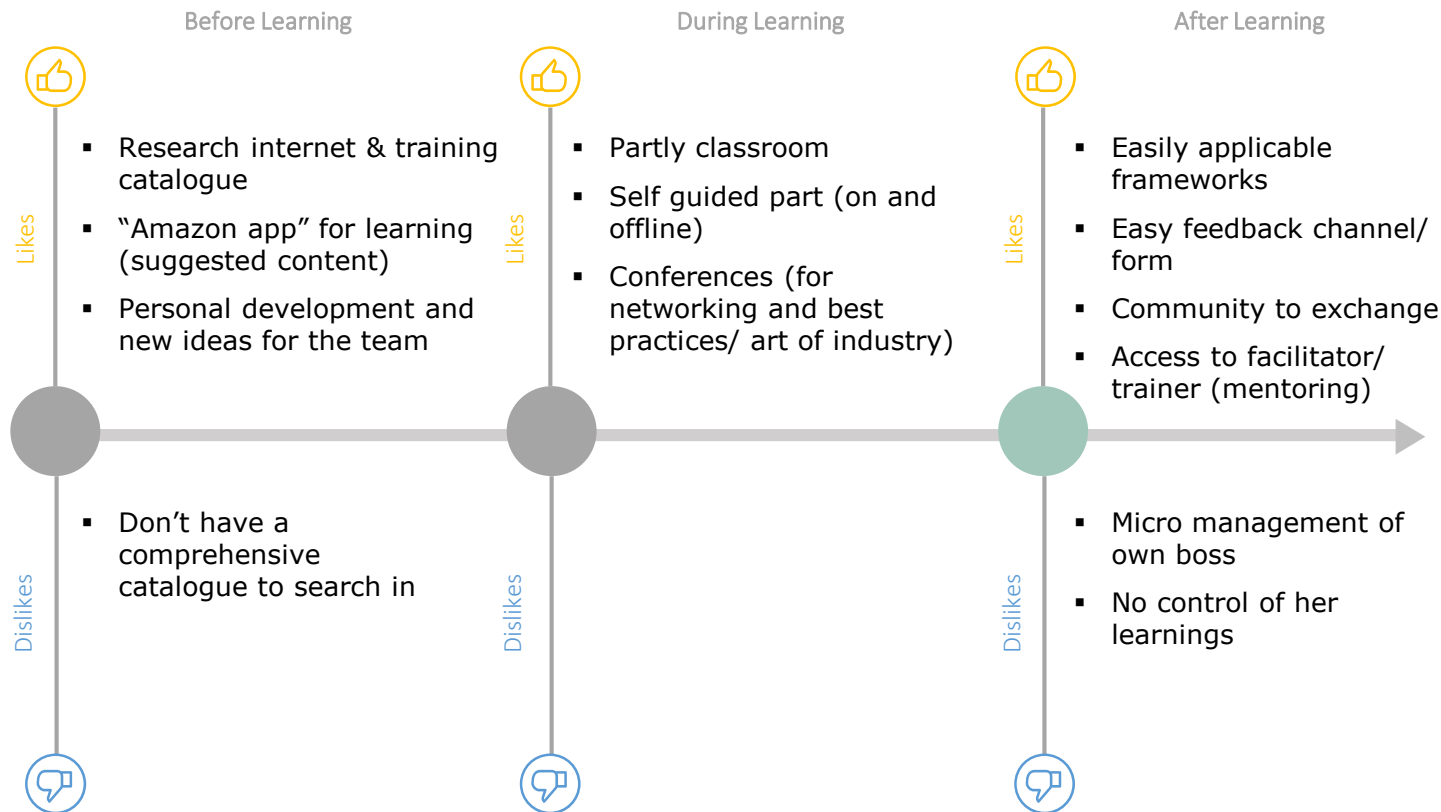
Business drivers

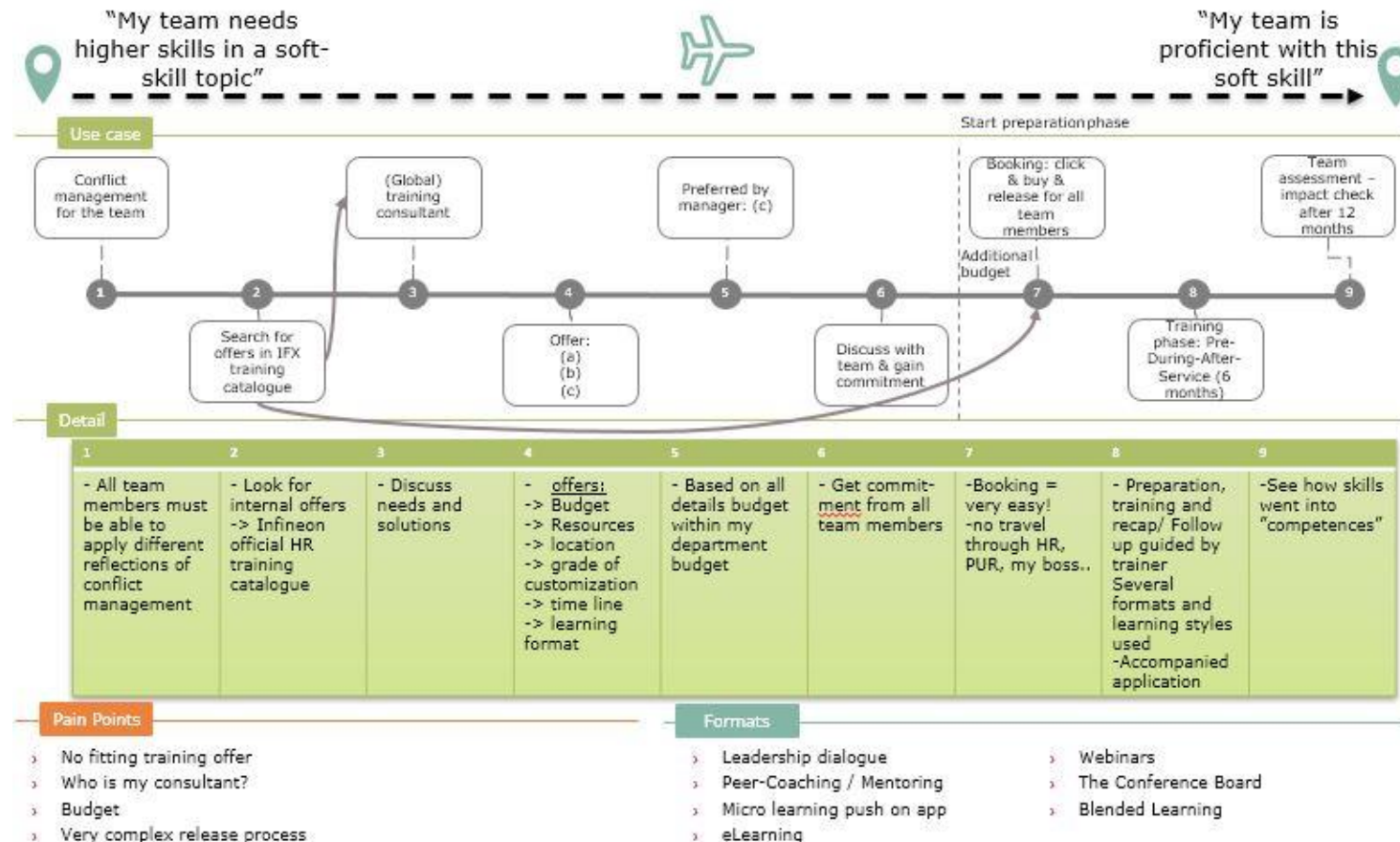Key success factors

Modern learning means adaptive learning

Modern learning means adaptive learning

User Journey 2: Ann – Manager (Team Lead)

Scenario: Learning offers for my team

Example

"My team needs higher skills in a soft-skill topic"

"My team is proficient with this soft skill"

Start preparation phase

Use case

| 1 Conflict management for the team | 3 (Global) training consultant | 5 Preferred by manager: (c) | 7 Booking: click & buy & release for all team members | 9 Team assessment – impact check after 12 months |

| 2 Search for offers in IFX training catalogue | 4 Offer: (a) (b) (c) | 6 Discuss with team & gain commitment | 8 Training phase: Pre-During-After-Service (6 months) |

Additional budget

Detail

1	2	3	4	5	6	7	8	9
- All team members must be able to apply different reflections of conflict management	- Look for internal offers -> Infineon official HR training catalogue	- Discuss needs and solutions	- offers: -> Budget -> Resources -> location -> grade of customization -> time line -> learning format	- Based on all details budget within my department budget	- Get commit-ment from all team members	-Booking = very easy! -no travel through HR, PUR, my boss..	- Preparation, training and recap/ Follow up guided by trainer Several formats and learning styles used -Accompanied application	-See how skills went into "competences"

Pain Points
> No fitting training offer
> Who is my consultant?
> Budget
> Very complex release process

Formats
> Leadership dialogue
> Peer-Coaching / Mentoring
> Micro learning push on app
> eLearning

> Webinars
> The Conference Board
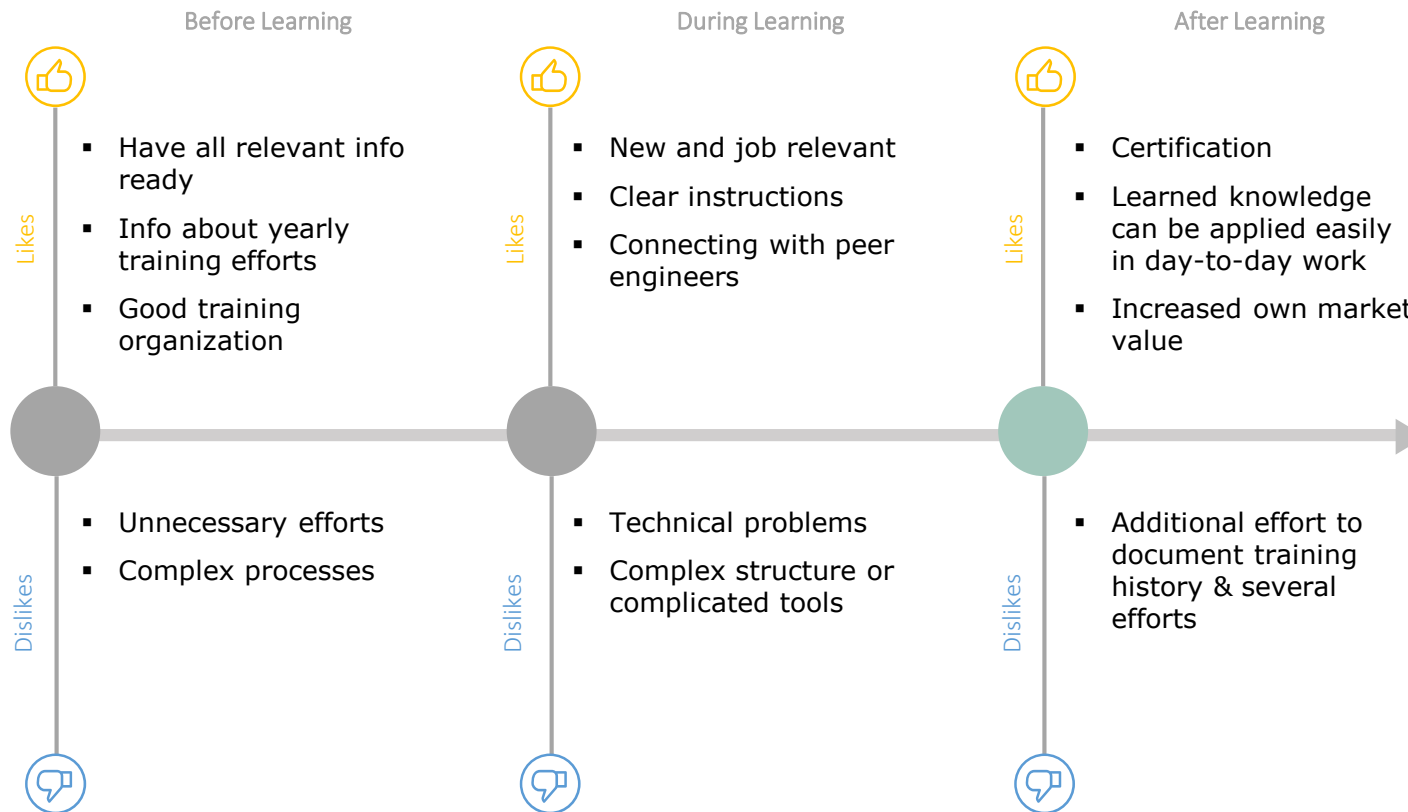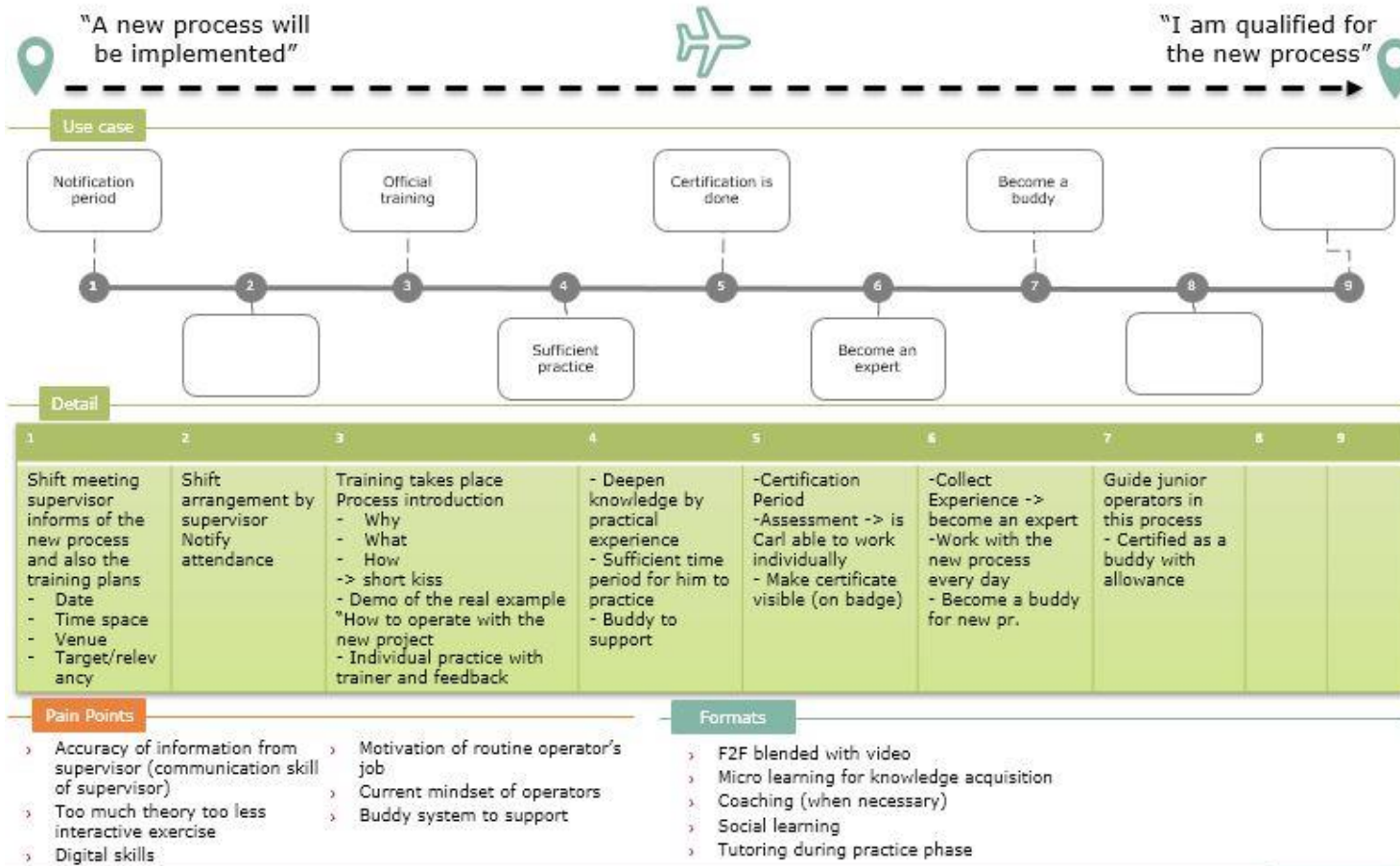> Blended Learning

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User Journey 3: Carl – Plant Shift Worker

Scenario: Get information & training

Example

Personal details

Age: 40 years old

Department: Clean room, Back-End

Time with company: 20 years, loyal to the company

Level: worker, no sift-lead, no university degree

Can be a buddy of a new worker

Challenges

"I don't have a personal computer."

"I barely log-in to the systems and when I do I cannot remember my password."

Language restrictions

Time limitation due to intensive working process

Desires

- Short and relevant knowledge update
- Present experience and gain recognition
- Likes simple solutions, hates reading long messages
- Likes practical learnings rather than theoretical inputs, considers training time as working time

Environment

- Working on one specific process (very little change)
- Experienced in his area, no broader experience
- Noisy environment
- No PC

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User Journey 3: Carl – Plant Shift Worker

Scenario: Get information & training

Example

Before Learning

Likes

- Have all relevant info ready
- Info about yearly training efforts
- Good training organization

Dislikes

- Unnecessary efforts
- Complex processes

During Learning

Likes

- New and job relevant
- Clear instructions
- Connecting with peer engineers

Dislikes

- Technical problems
- Complex structure or complicated tools

After Learning

Likes

- Certification
- Learned knowledge can be applied easily in day-to-day work
- Increased own market value

Dislikes

- Additional effort to document training history & several efforts

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User Journey 3: Carl – Plant Shift Worker

Scenario: Get information & training

Example

"A new process will be implemented"

✈

"I am qualified for the new process"

Use case

| Notification period | Official training | Certification is done | Become a buddy | |

1   2   3   4   5   6   7   8   9

| Sufficient practice | Become an expert | |

Detail

1	2	3	4	5	6	7	8	9
Shift meeting supervisor informs of the new process and also the training plans - Date - Time space - Venue - Target/relevancy	Shift arrangement by supervisor Notify attendance	Training takes place Process introduction - Why - What - How -> short kiss - Demo of the real example "How to operate with the new project - Individual practice with trainer and feedback	- Deepen knowledge by practical experience - Sufficient time period for him to practice - Buddy to support	-Certification Period -Assessment -> is Carl able to work individually - Make certificate visible (on badge)	-Collect Experience -> become an expert -Work with the new process every day - Become a buddy for new pr.	Guide junior operators in this process - Certified as a buddy with allowance		

Pain Points

› Accuracy of information from supervisor (communication skill of supervisor)
› Too much theory too less interactive exercise
› Digital skills

› Motivation of routine operator's job
› Current mindset of operators
› Buddy system to support

Formats

› F2F blended with video
› Micro learning for knowledge acquisition
› Coaching (when necessary)
› Social learning
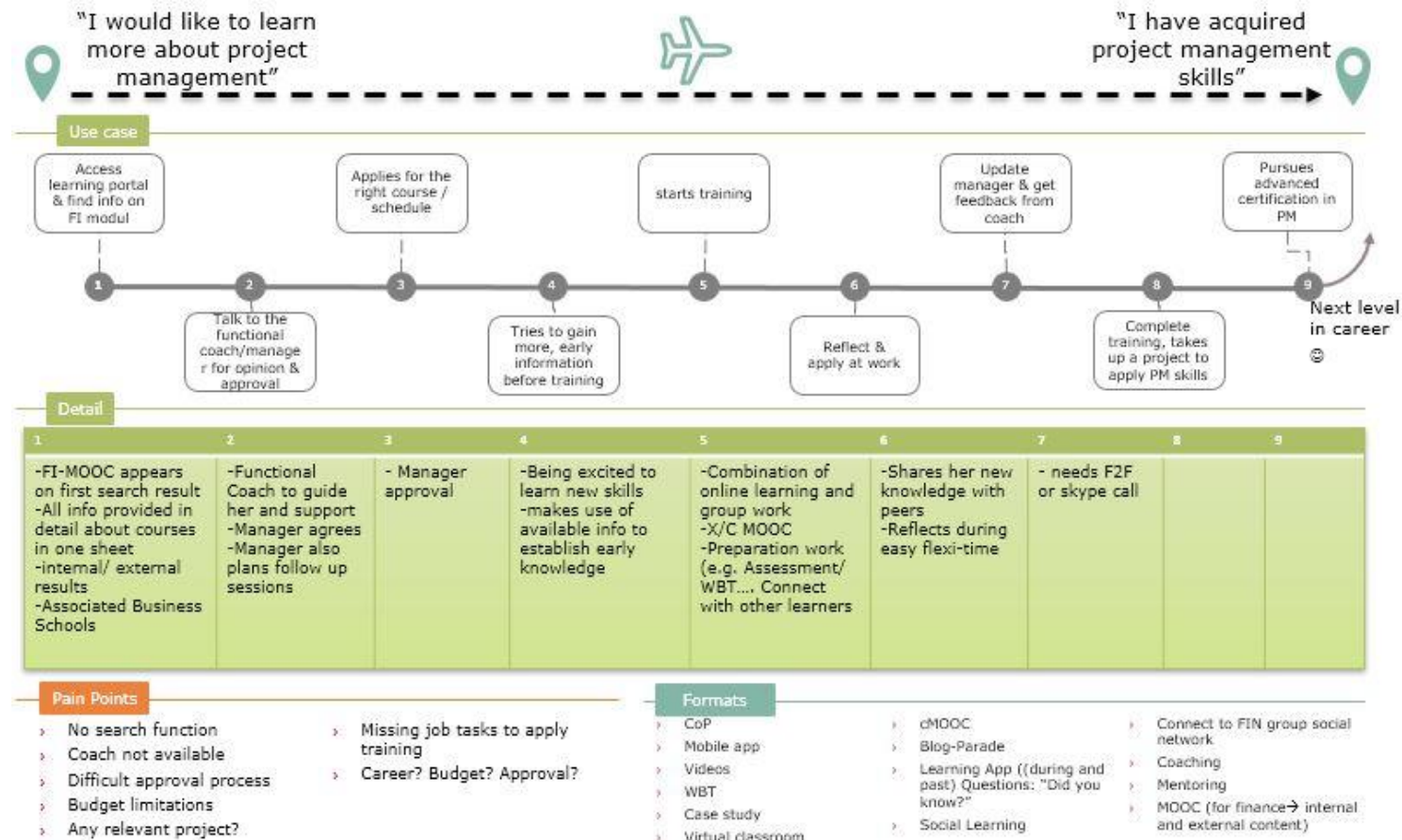› Tutoring during practice phase

Modern learning means adaptive learning

User Journey 4: Julia – Young Professional

Scenario: Obtain new qualification

Example

Personal details

Age: 28 years old

Department: Finance, Accounting

Time with company: 4 years

Challenges

"I dislike slow pace and out-dated approaches."

"I want to constantly improve myself and would like my employer to offer innovative trainings."

Desires

- Gain knowledge about new standards and technology
- Career path? Next level: leadership role
- Engaging training/ modern
- How to fit with next level? (part time?)
- Network with accountants abroad

Environment

- Learning / working part time at home, flexible working time
- Office worker, PC-access, mobile, laptop…
- Mobility
- Attend training on certain days only, e.g. year-end-closing
- Finance academy program, e.g. FI-MOOC

Modern learning means adaptive learning

User Journey 4: Julia – Young Professional

Scenario: Obtain new qualification

Example

Before Learning

Likes
- Excitement / interest
- Proper course learning offering
- Easy to find
- Easy and fast approval process, not complicated

Dislikes
- Long waiting time to attend a course
- No relevant trainings available

During Learning

Likes
- Flexible learning times, easy access
- Practical exercises/ activities
- Interactions, less theory
- Peer reviews/ connections
- Collaboration, open discussions

Dislikes
- Disruptions
- Too much of lectures, complicated course content
- When there are no interactions, groupwork / exercises

After Learning

Likes
- Good output, apply to daily job
- Share the learning, promote the learning

Dislikes
- Disruptions
- Too much of lectures, complicated course content
- When there are no interactions, groupwork / exercises

Modern learning means adaptive learning

User Journey 4: Julia – Young Professional

Scenario: Obtain new qualification

Example

Modern learning means adaptive learning

User Journey 5: Tim – External Employee

Scenario: Get to know a new product

Example

Personal details

Age: 35 years old

Department: Sales representative

Time with company: 2 years (for us and other companies)

Challenges

"What's my benefit when I sell our products? There are so many other products in the market."

"I would like to get the latest info about new technologies from our company promptly without long research."

Desires

- Fast & easy access to product information
- Understand why we have the best offer
- Tailored news feed on relevant products
- To share selected material with customers
- Training helps to sell more volume and more effectively

Environment

- On the road
- At the several customer sites
- Modern technologies
- Money driven
- Talkative
- Socializing
- Nice car, clothes, etc.
- Career oriented

Modern learning means adaptive learning

User Journey 5: Tim – External Employee

Scenario: Get to know a new product

Example

Before Learning

Likes
- Tailored news, just-in-time
- Learning is accessible on any device, also via mobile phone, tablet
- Easy access with single sign on

Dislikes
- Forgot again my credentials for the SF-tool
- I cannot use the training offering on all my devices (only PC)

During Learning

Likes
- I like the fancy modern looks of this training
- Its just what I needed

Dislikes
- This training is way too long / boring
- Bad W-Lan connection in the hotel – training needs ages to load
- This is not the content I expected

After Learning

Likes
- Save useful information / learning material for my customer in the next meeting
- Offline available
- Bookmark tracking

Dislikes
- I did the training why doesn't show it completed in my training history
- I hate to fill-out the feedback sheets after doing an online course – what's it for?

About mobile learning

Application areas for mobile learning

Business drivers

Key success factors

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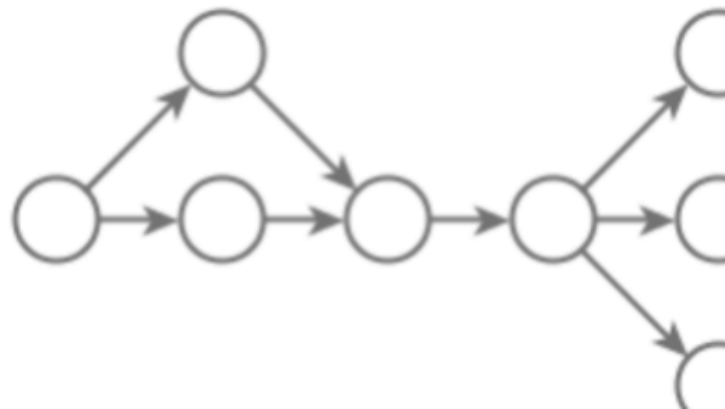# Modern learning means adaptive learning

User Journey 5: Tim – External Employee

Scenario: Get to know a new product

Example

Modern learning means adaptive learning

You're probably wondering how to put the concept of Learning Journeys into practice. One possibility is to determine the preferences and requirements of an individual learner in a **virtual dialogue**.

Let's take a look at an example: A new IT-tool is about to be introduced. Accompanying training measures are planned to train its use and the associated process.
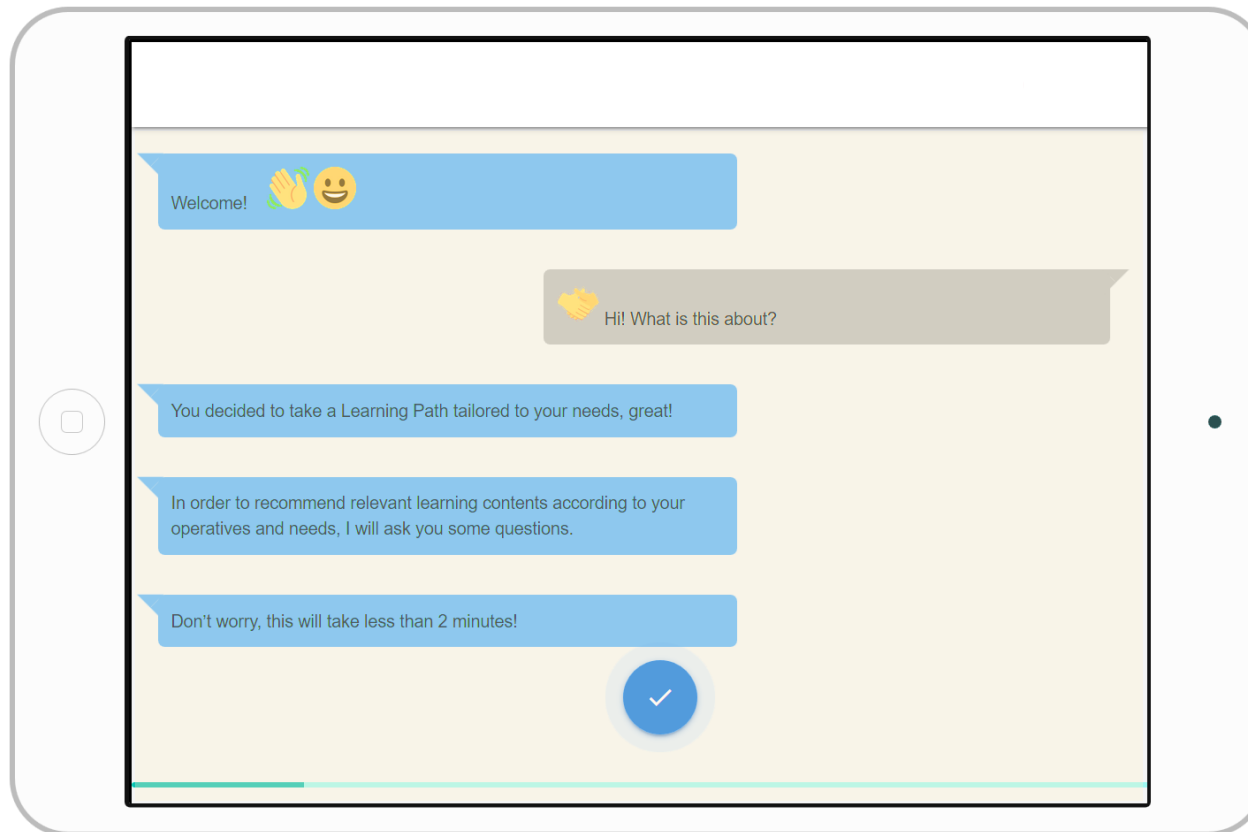
Modern learning means adaptive learning

To give the learner a tailor-made learning recommendation based on **self-assessment questions**, a **simulated chat** with the learner can, for example, be structured as follows:
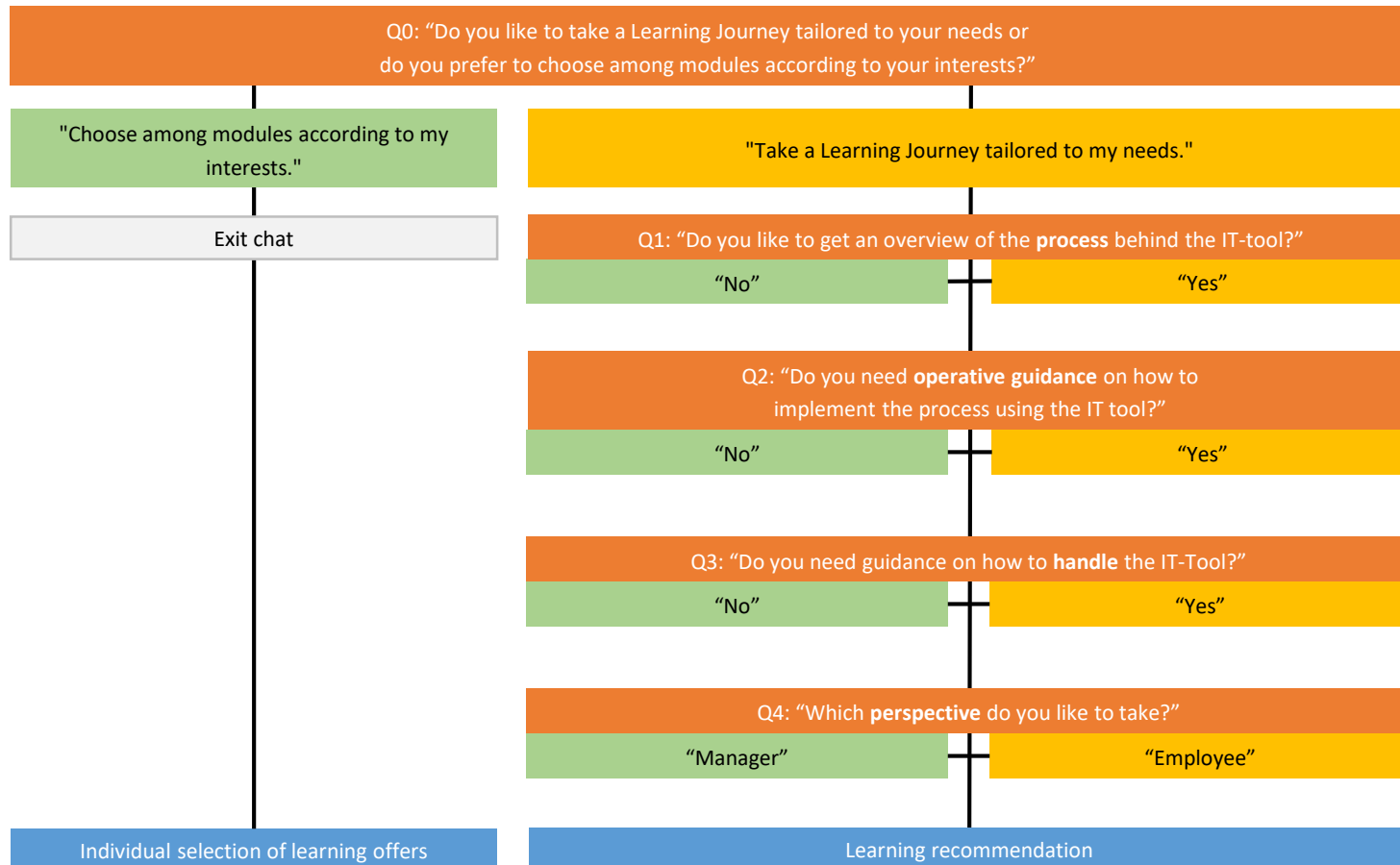
Q0: "Do you like to take a Learning Journey tailored to your needs or do you prefer to choose among modules according to your interests?"

"Choose among modules according to my interests."	"Take a Learning Journey tailored to my needs."
Exit chat	

Q1: "Do you like to get an overview of the process behind the IT-tool?"

"No"	"Yes"

Q2: "Do you need operative guidance on how to implement the process using the IT tool?"

"No"	"Yes"

Q3: "Do you need guidance on how to handle the IT-Tool?"

"No"	"Yes"

Q4: "Which perspective do you like to take?"

"Manager"	"Employee"

Individual selection of learning offers	Learning recommendation

Modern learning means adaptive learning

In the next step, the self-assessment results can be assigned to different learner profiles. The Attribution to learner profiles can be lucidly represented as a **matrix**:

Profiles	Genius	Genius + IT	Focused Learner	Focused Learner + IT	Refresher	Refresher + IT	Starter	Starter +IT
Process	"No"	"No"	"No"	"No"	"Yes"	"Yes"	"Yes"	"Yes"
Operative guidance	"No"	"No"	"Yes"	"Yes"	"No"	"No"	"Yes"	"Yes"
IT-Tool handling	"No"	"Yes"	"No"	"Yes"	"No"	"Yes"	"No"	"Yes"
Perspective (**M**anager, **E**mployee)	M E	M E	M E	M E	M E	M E	M E	M E

Questions

In total 16 different outcomes (8 per role)

Learning Journeys: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

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The learner should receive an individual proposal according to the matching **learning journey**:
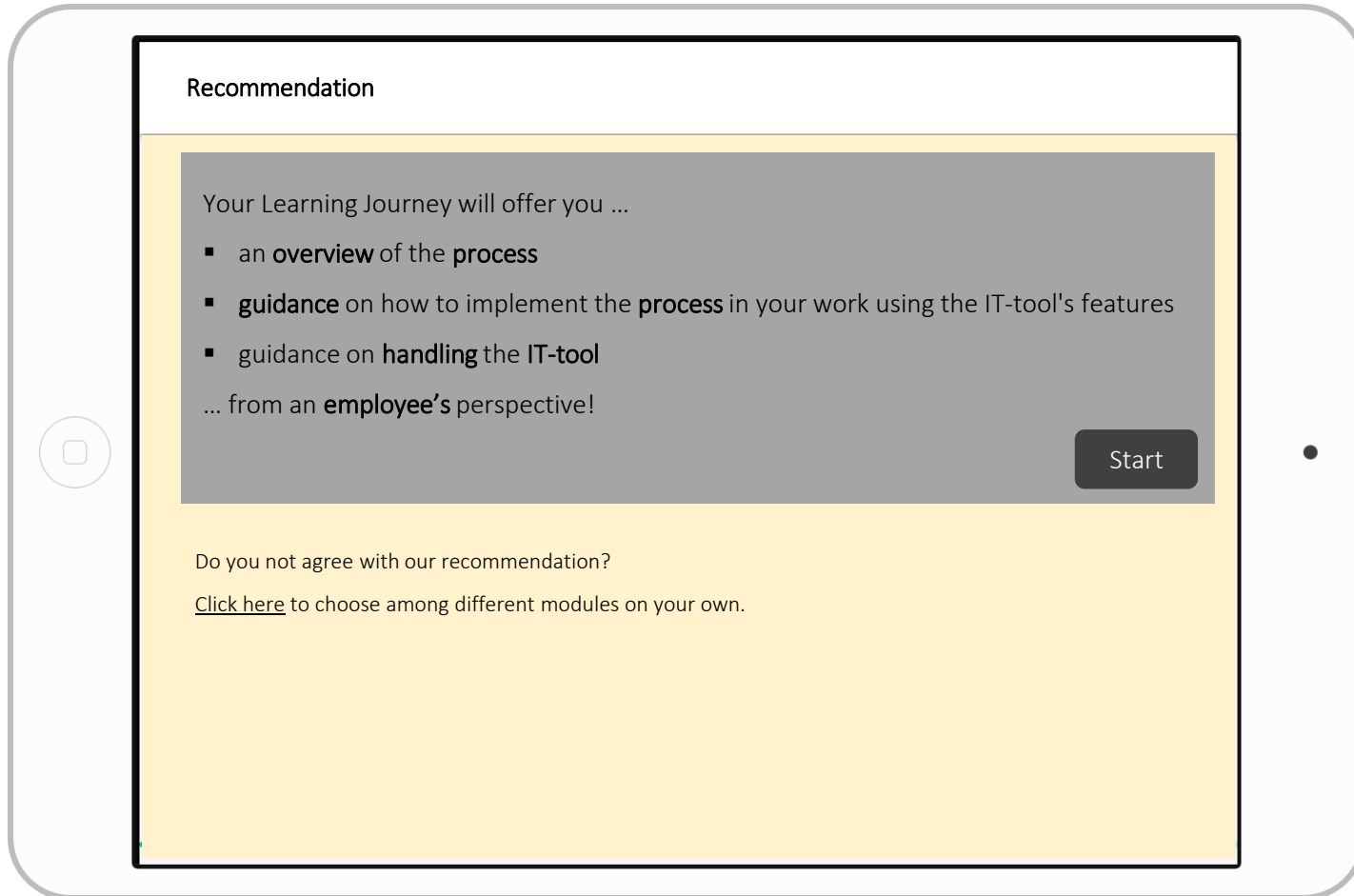
Recommendation

Your Learning Journey will offer you …

- an **overview** of the **process**
- **guidance** on how to implement the **process** in your work using the IT-tool's features
- guidance on **handling** the **IT-tool**

… from an **employee's** perspective!

Start

Do you not agree with our recommendation?

Click here to choose among different modules on your own.

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From a technical perspective, the learning recommendation defines the filter criteria for the selection of learning modules. The results are reflected in the compilation of the **table of contents**.
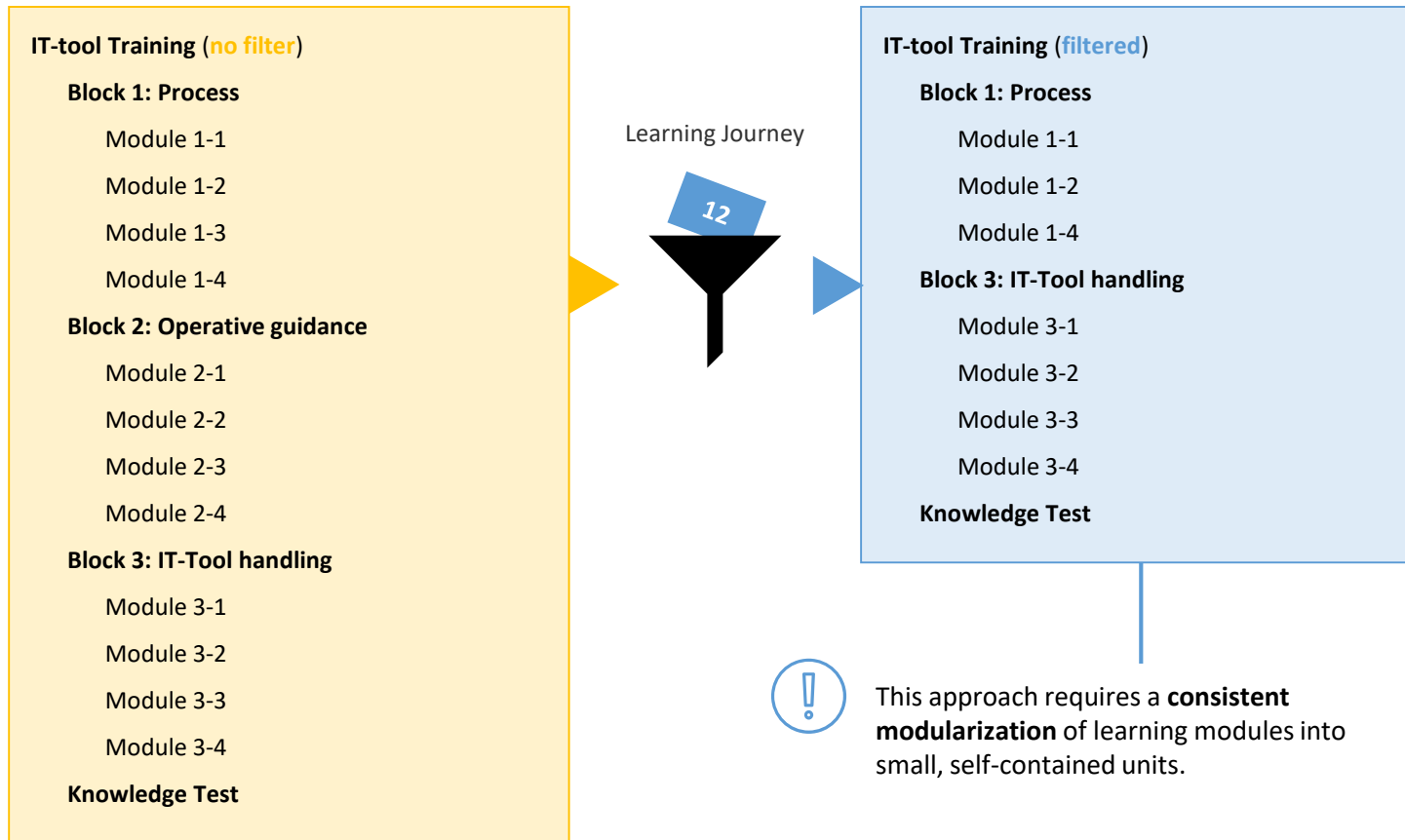
IT-tool Training (no filter)

  Block 1: Process

    Module 1-1

    Module 1-2

    Module 1-3

    Module 1-4

  Block 2: Operative guidance

    Module 2-1

    Module 2-2

    Module 2-3

    Module 2-4

  Block 3: IT-Tool handling

    Module 3-1

    Module 3-2

    Module 3-3

    Module 3-4

  Knowledge Test

Learning Journey

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IT-tool Training (filtered)

  Block 1: Process

    Module 1-1

    Module 1-2

    Module 1-4

  Block 3: IT-Tool handling

    Module 3-1

    Module 3-2

    Module 3-3

    Module 3-4

  Knowledge Test

(!) This approach requires a **consistent modularization** of learning modules into small, self-contained units.

Modern learning means adaptive learning

In order to create an adaptive learning journey through the content, you need a branching algorithm. This algorithm can be constructed manually in an **authoring tool**, or using built-in features of the **SuccessFactors Learning Management System**.

Authoring tool	**SuccessFactors**

✓ ▪ High flexiblility

✗ ▪ Requires advanced authoring skills (such as working with variables and basic programming knowledge)
▪ All learning modules must be combined in a single package (Consider bandwidth in mobile scenarios!)

✓ ▪ Only the required learning modules are delivered (Data minimization)

✗ ▪ Requires advanced SuccessFactors handling skills
▪ Moderate flexibility

Modern learning means adaptive learning

Creating an adaptive learning journey in Adobe Captivate using the *Branching View*

The authoring tool provides a visual representation of links between slides. This feature can be used to let learners jump between modules. The Branching Panel also lets you create slide groups to organize navigation through the contents.
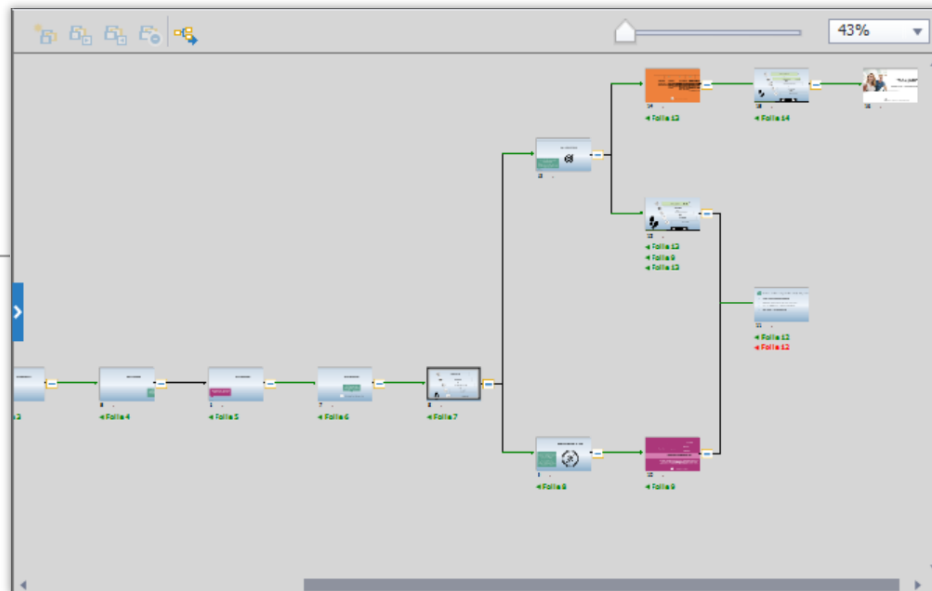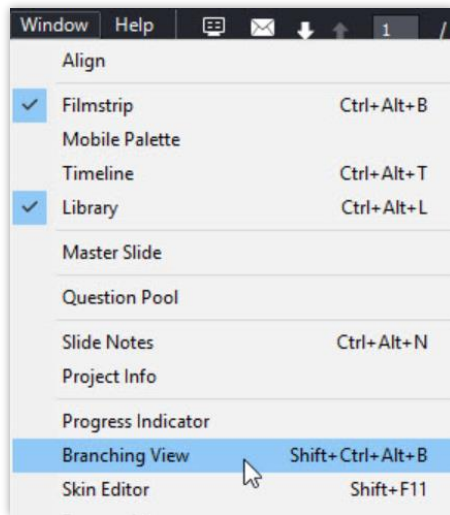
Modern learning means adaptive learning

Creating an adaptive learning journey in Adobe Captivate using *Advanced Actions*

To map the virtual chat dialog described above in terms of software, you can work with **variables** and evaluate them programmatically using **Advanced Actions**.

Each question is scored (i.e. "Yes" = 1, "No" = 0). The sum obtained from the answers can be used as a trigger to selectively show or hide individual slides.
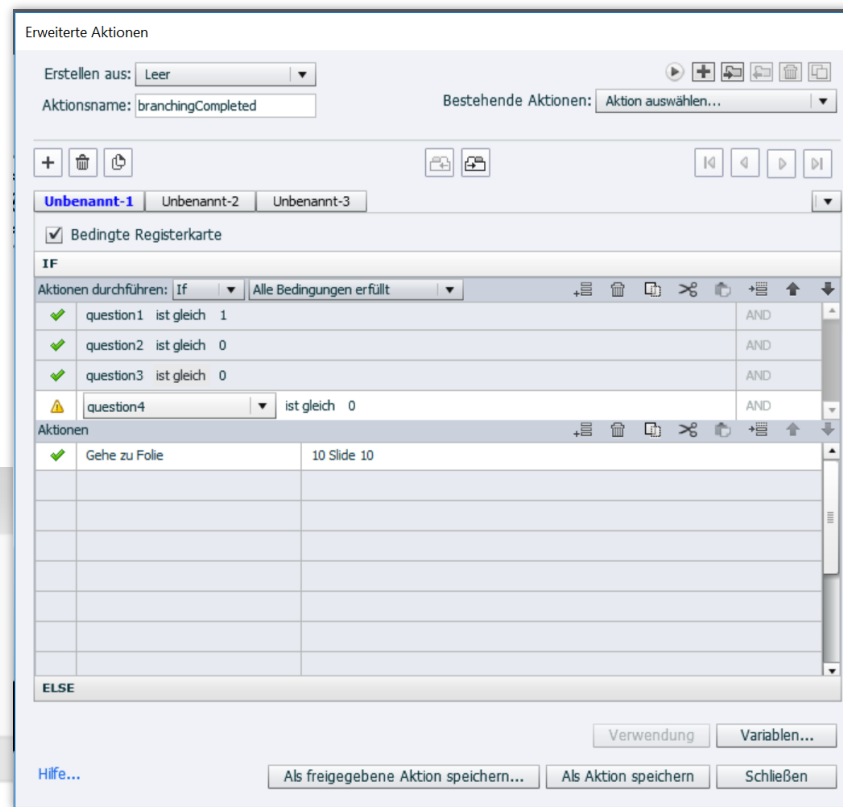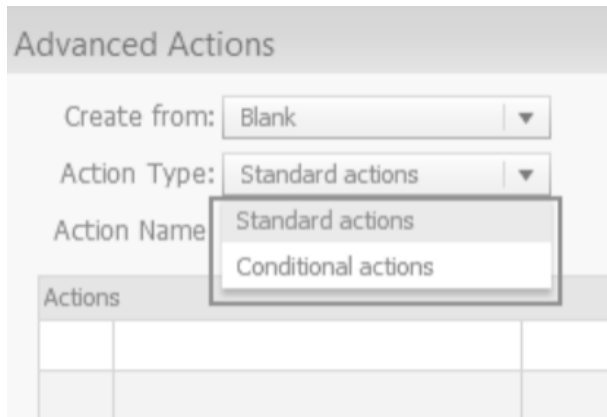
Modern learning means adaptive learning

Creating an adaptive learning journey in SAP SuccessFactors Learning

Adaptive learning in SAP SuccessFactors Learning involves an **objective-based** teaching and testing process. An online learning offer can be designed to begin with a **self-assessment**. Based on the results, the system only presents to the user content that is **associated** with the respective learning objective.
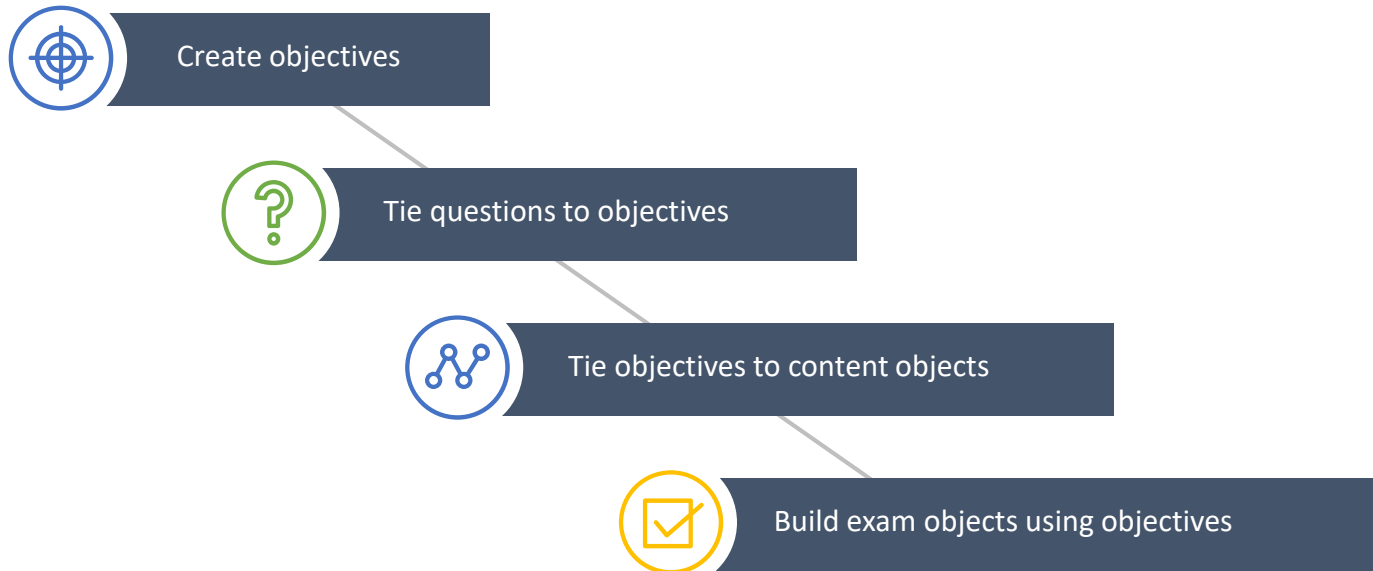
Create objectives

Tie questions to objectives

Tie objectives to content objects

Build exam objects using objectives

SAP SuccessFactors ♡

How do you get started?

First of all, you will need to perform some type of upfront analysis of your audience, content, capabilities, and business needs.

Define

- What is the problem /requirement?
- What do you want to accomplish?
- Who is the audience?
- Do you have a working description including the vision, benefits and cost estimates?

Discover

- What technology do they have/need?
- What are their requirements?
- Is mobile appropriate?
- Is the culture ready?
- Have you researched mobile options?
- Who is in charge?
- Are all stakeholders on board? (IT, legal, content owners...)
- What policies need to be changed or added?
- Are there sufficient resources?
- What is the timeline?
- Who will maintain the program after the initial project ends?

How do you get started?

First of all, you will need to perform some type of upfront analysis of your audience, content, capabilities, and business needs.

Design

- Is content available? If not, who will create?
- Is the content for formal or informal learning, or for performance support or job aid?
- How will you maintain and update content?
- What do you need to track?
- What will the user interface look like?
- What security measures are required?
- What is the smallest, most concise chunk of learning content?

Develop

- What internal mobile competencies does your organization have?
- Who is going to develop?
- Where is the content going to be hosted?
- What devices and platforms are you supporting?
- Do you have the tools you need?
- Do you have testing devices and debugging tools?
- Do you need offline access?

How do you get started?

First of all, you will need to perform some type of upfront analysis of your audience, content, capabilities, and business needs.

Deploy

- Who is going to support the users?
- How will you provide training on the devices and apps?
- Where is the data going to be stored?
- How will availability be marketed?

Determine outcome

- How will you know if your program is successful?
- How will you assess learning?
- Who will evaluate program and learning?
- What measures will you use?

Development considerations

With mobile learning in general, the most common pitfall is misjudging the network bandwidth available. Service providers in countries like Canada, the USA, and the UK provide high mobile data bandwidth. At times, this creates an illusion that content is ready for roll-out.

However, learners from countries with **bandwidth challenges** often complain of buffering issues or content not loading.

To combat these issues, it is recommended to develop **"light" content**, compress audio and video files for web streaming, and perform thorough testing globally before larger distribution of content.

User experience

Here are some considerations to help with the development of mobile learning:

- Be mindful of **how much content** you include on a screen.

- Include **bookmarking** functionality to ensure learners can resume their experience on a different device as needed.

- **Keep quizzes short** and concise; keep options to not more than four.

- If **linking to external sites**, notify learners they are leaving mobile-optimized content.

- Avoid having users **horizontally scroll** to view content.

- Minimize the need for pinching to **zoom** in or out to view content.

- Understand **how learners hold a device**. If you designed for a particular view (landscape/portrait), let the learner know so they can lock their display rotation.

Typography

The default font is VERDANA.

- Headlines: 24px
- Text (body): 12px

Color scheme

- Color plays a significant role in mobile learning applications. Color communicates importance and association, and provides direction to users.

Color scheme

- The **primary colors** of mobile applications are ocean for structure and berry for special attention. They leverage the uniqueness of mobile applications and represent the overall look and feel.

Ocean Dark

#5EA290
R94 G162 B144

Used for following UI elements:
> Header
> Buttons
> Tabs
> Checkboxes
> Loading

> Slider/Seekbar
> Segment in Toolbar
> Fabs
> Range
> Toggle/Switch

Berry

#AB377A
R171 G55 B122

Used for following UI elements:
> Icons
> Buttons
> Slider/Seekbar

Color scheme

- **Semantic colors** are accent colors that can be applied to accentuate important elements.

Lawn Dark

#769F3B
R118 G159 B59

Used for following UI elements:
- Buttons
- Range
- Toggle/Switch
- Checkbox
- Fabs
- Slider/Seekbar

Sun

#EE813C
R238 G129 B60

Used for following UI elements:
- Buttons
- Range
- Toggle/Switch
- Checkbox
- Fabs
- Slider/Seekbar

Logo Red

#E30034
R227 G0 B52

Used for following UI elements:
- Buttons
- Range
- Toggle/Switch
- Checkbox
- Fabs
- Badges
- Slider/Seekbar

Color scheme

■ **Grayscale** areas play an important role in mobile applications. They minimize the risk of over-stimulation and foster simplicity. White and the light grays are mainly used for areas in the background or for borders. While darker gray shades are primarily used for texts.

#263238
R38 G50 B56
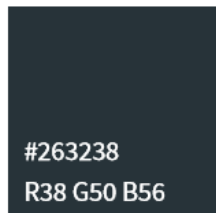
Used for following UI elements:
› Toast Notification

#D7D7D7
R215 G215 B215

Used for following UI elements:
› Secondary Color
› Lines, Arrows
› Toogle/Switch

#E6E8ED
R230 G232 B237

Used for following UI elements:
› Page Background

#F4F4F4
R244 G244 B244

Used for following UI elements:
› Light Color

#FAFAFA
R250 G250 B250

Used for following UI elements:
› Side Menu Page Background

#FFFFFF
R255 G255 B255

Used for following UI elements:
› Content Background
› Text

Animations and imagery

While animations and imagery are necessary, they should be **present for a reason:**

- Animations and imagery need to help **focus** on content.

- Animations and use of images should be **consistent**.

- Good animations are **unobtrusive**, which means they run fast. Therefore, include simple, easy, and short animations.

- Aesthetics should take the back seat to **user experience**.

Interactions

- Create **large buttons** for navigating content on a mobile device.

- Place buttons like Submit and Cancel away from each other. This helps minimize learners **tapping the wrong button**.

- Avoid using a lot of buttons.

- Leave a lot of space around buttons; at the very least, 10px.

- Make your buttons bright, bold, and visible.

- Use clear and very descriptive action verbs on your buttons.

- Keep the input fields to a minimum. Use large checkboxes or radio buttons instead.
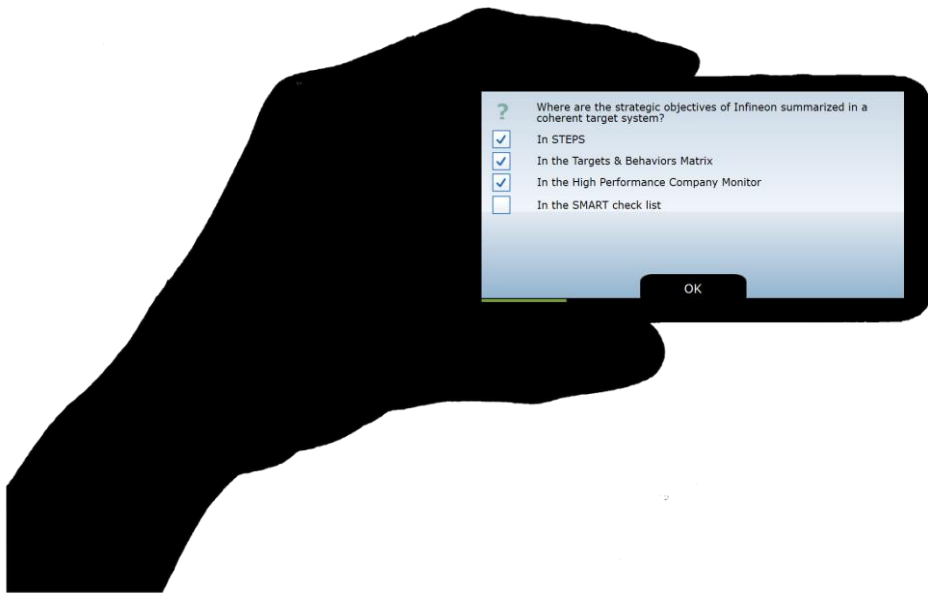
Additional tips

- Leave **plenty of space** around your on-screen elements.

- **Optimize** and compress any audio and video files for fast mobile experiences.

- Preview your content early and often on multiple browsers, devices, and operating systems.

- If a text heavy slide must be used, create a mobile friendly infographic out of it or break up the text and cover it over multiple slides.

- Ensure **brand compliance**.

- Develop **content** that is clear and easy to understand.

Information security

Data security is a primary concern when mobile learning is discussed. Technical measures can protect the network traffic - but there is no guarantee. The most damaging effect is the loss of confidential information. Mobile learning content should therefore **not contain any confidential information**.

Authoring tools for mobile learning

The authoring tools below are all capable of producing mobile web content. They convert your content and design in HTML5 format making it possible to achieve cross-browser compatibility. In other words, learners can launch the same content on the browsers of their laptop or mobile devices.

The tools are also capable of producing SCORM-based packages for deployment in SAP SuccessFactors.

The most common authoring tools are **Adobe Captivate** and **Articulate Storyline.**
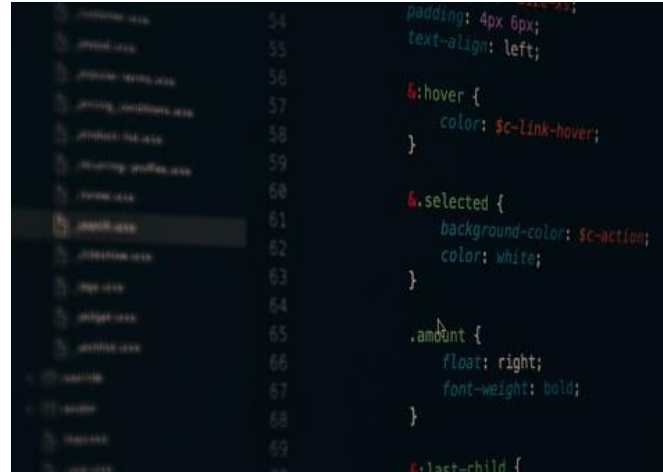
Authoring tools for mobile learning

Adobe Captivate

Infrastructure

Mobile devices

Templates

Adobe Captivate	Articulate Storyline	Articulate Studio

Articulate Rise	Adapt Learning	Inkling
▪ Component of the Articulate 360 suite (SaaS) ▪ Focus on responsive e-learning design right in the web browser	▪ Open Source authoring tool for producing responsive, multi-device e-learning	▪ All-in-one, easy to use platform for device-independent content management ▪ Content creation, storage, distribution, measurement

Evolve	GoMo Learning	Elucidat
▪ Tool for producing multi-device e-learning ▪ Focus on interactions, quizzes	▪ eLearning suite for HTML5 authoring, hosting, analytics and apps	▪ Authoring tool for producing highly responsive, multi-device e-learning content

Authoring tools for mobile learning

Mobile learning content must flexibly adapt to different screen sizes. If you want to publish a project to be accessible from mobile devices, **Adobe Captivate,** for example, offers three workflows to achieve this:

- **Scalable Project:** This will result in a layout that shrinks or enlarges the stage to fit on all screens. This option can only be used meaningfully in landscape mode.

- When using **Fluid boxes** the layout will be automatically rearranged by the application depending on the screen size.

- When using the **Breakpoint** workflow you have control over the design for a maximum of **five resolutions**. You can not just omit elements, but also replace them with other elements, such as replacing an animation or video with a static image, or an icon to cope with smaller screens. Control over the layout means control over the size and position of each element in each breakpoint. You must know that the development time for project using Breakpoints will be much longer, since you have to arrange each Breakpoint on every slide individually.
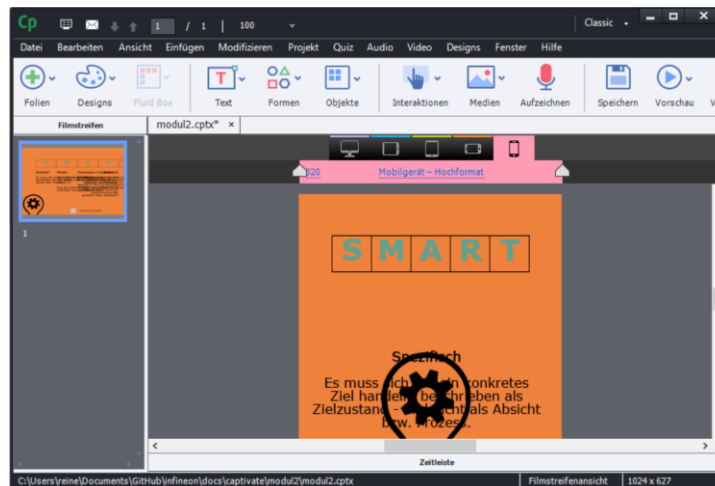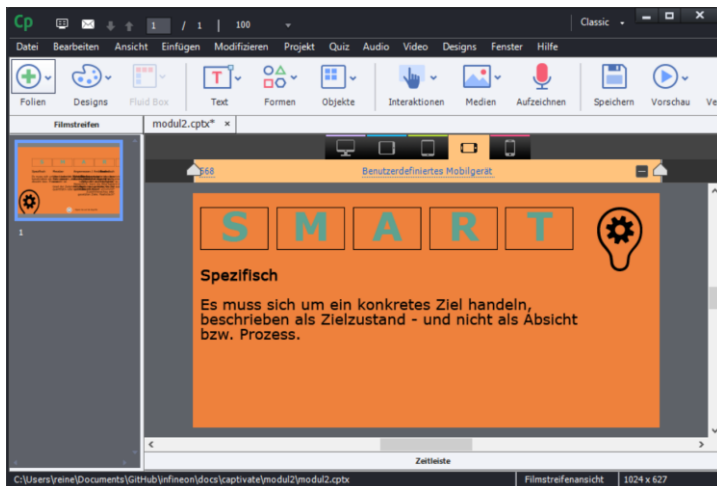
Infrastructure -

Where will you host your mobile content?

One of the questions you must ask early on is where will you host your mobile content. The answer depends on the type of content you plan to deliver on mobile devices.

▪ By default, you can host micro-learning, assessments, and surveys in the **SAP SuccessFactors** learning management system as an offering.

▪ Learners will want to consume this type of content once. After completion, a learning credit can be granted, and the offering moves into the "**Learning History**."

By contrast, mobile content described as job aids, glossaries, and checklists, which are intended to be used by practitioners multiple times in their moment of need, might be hosted in a solution to mobile access of information on the go.

This ensures quick launch, as opposed to searching the "Learning History" to find content or reregister in an offering.
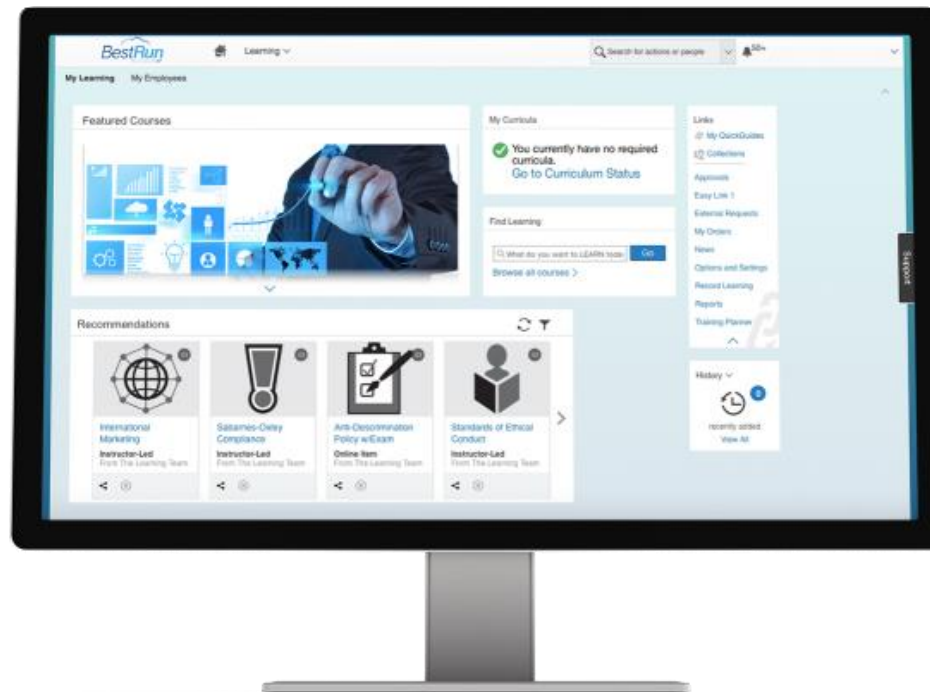
What mobile devices will be used to consume content?

Content should be designed in such a way that it dynamically adapts to screens of devices without challenge. A learner can choose to launch content on mobile phones or tablets, but the learning experience must be consistent.

Consider the need for bandwidth for your audience to consume content. Connectivity and bandwidth will vary globally with mobile data plans and the use of Wi-Fi.

With the launch of SAP SuccessFactors, there is an option to provide downloadable content to your audience. Learners can download the required content to their devices when they are in highspeed internet zones, consume content in offline mode, and resync the data with SuccessFactors once they connect back to a high-speed internet connection.

Not everyone in your audience is as tech savvy as you would like them to be. You must identify your mobile learning **support system**. **Technology related issues** are generally handled by the teams that support the learning platform. For **content-related issues**, provide a method for learners to contact the content owners.

Authoring tools for mobile learning

Adobe Captivate

Infrastructure

Mobile devices

Templates

Templates

To help you get started with your first mobile learning project, we've prepared ready-to-use Adobe Captivate templates for you to download.

First steps

Interactive word map

Interactive letters

Quiz

As a basis for conceptual work, you can download an exemplary storyboard (Microsoft PowerPoint) for a mobile learning project:

Storyboard template
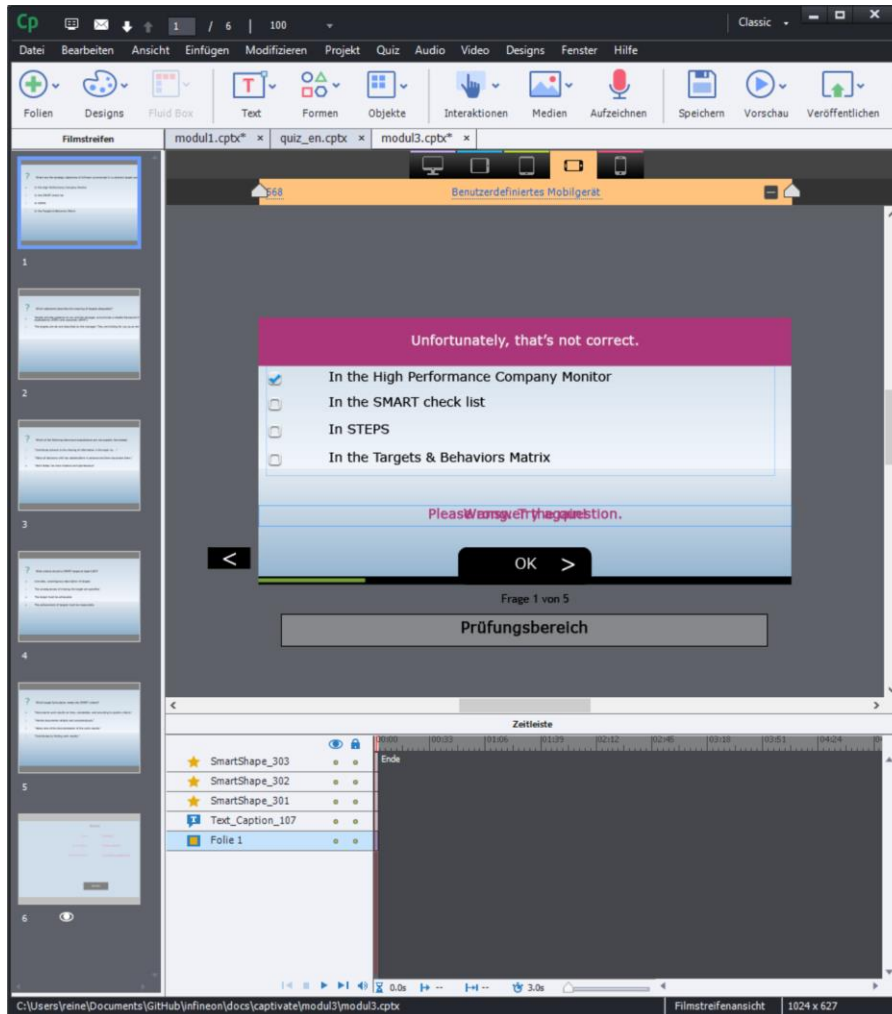
Authoring tools for mobile learning

Adobe Captivate

Infrastructure

Mobile devices

Templates

Mobile learning "Dos and Don'ts"

Mobile learning is intended to provide content in a manner that promotes knowledge retention. Whether you plan to develop mobile content from scratch or repurpose an existing e-learning, there are a few considerations:

- A mobile device is best used for providing knowledge nuggets. Content that works within this requirement, such as quick reference, procedures, games, quizzes, videos, and short lessons, can easily be adapted into mobile learning content.

- Design the content to ensure it holds a learner's attention on a mobile phone.

- For "extra" information: Focus on showcasing where to find detailed information. Include links to reference materials so learner can choose to explore in the moment of their need.

- It is recommended to cover one topic per title. Multiple topics are usually a trait of regular e-learning or classroom training.

- Do not expect learners to spend more than 10 minutes on their mobile phone.

- The learning experience worsens if a learner has to click "next" to proceed on each screen.

- Too much on-screen text reduces a learner's attention span.

- Too much multimedia, such as a combination of audio, animations, and interactions, can cause frustration.

- Do not include content that is not crucial to the flow of learning.

Going mobile - the basics

You assessed your audience's appetite for mobile learning, gained buy-in from stakeholders, and probably even have content structure in mind.

Here are the **high-level design and delivery aspects** you should keep in mind:

Learner experience
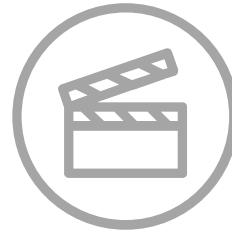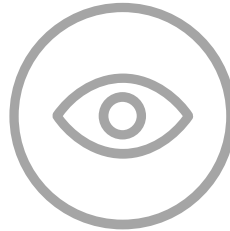
Navigation

Multimedia

Duration

Aesthetics

Deployment

Learner experience

In the end, it's all about retention of content.

- The type of mobile solution will define the experience you want your audience to have. Ensure that your learner knows at the onset of what they are signing up for, what the content is, and how long they are investing in learning.

- Reduce the amount of time a learner needs to learn how to use the technology or interface that delivers the content, focusing more on the message of your content.

Learner experience
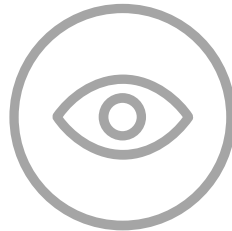
Navigation

Multimedia

Duration

Aesthetics

Deployment

Duration

Studies have shown the attention span of today's learner is quite short.

- Ensure that the time your learner is spending is valuable with a message that sticks.
- The recommended duration of mobile learning is 2 to 10 minutes.

Learner experience
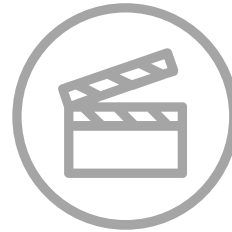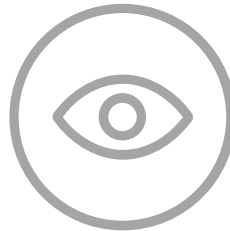
Navigation

Multimedia

Duration

Aesthetics

Deployment

Navigation

Think about a learner holding a mobile device in their hands to consume content.

- Navigation is not something a learner needs to learn, it should be intuitive.

Learner experience
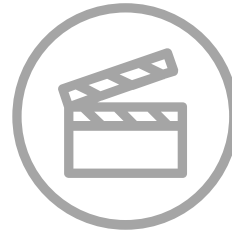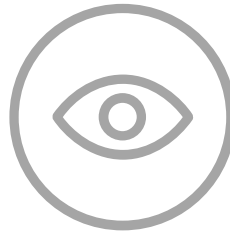
Navigation

Multimedia

Duration

Aesthetics

Deployment

Aesthetics

The look and feel of your content matters.

- Learners are quick to judge the quality. They will make up their minds to go through it all or drop it within the first 30 seconds.

- Focus on simple design presented in an aesthetically pleasing manner. However, aesthetics should take the back seat to user experience.

Learner experience
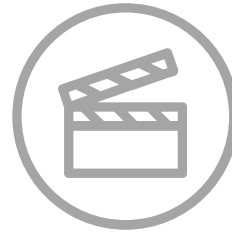
Navigation

Multimedia

Duration

Aesthetics

Deployment

Multimedia

Web content on mobile devices is highly dependent on the use of data.

- Ensure video and audio files are optimized and compressed for fast mobile experiences.
- Generally, MP4 for video and MP3 for audio are the formats that fit all platforms.
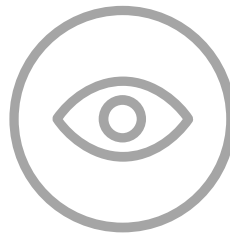
Learner experience

Navigation

Multimedia

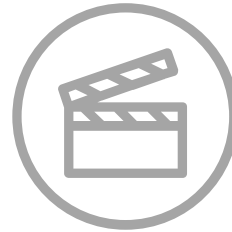**Duration**

Aesthetics

Deployment

Deployment

Where to deploy mobile learning modules depends on the type of content you plan to deliver on mobile devices. For example, the SAP SuccessFactors learning management system can host micro-learning, assessments, and surveys as offerings. Learners will want to consume this type of content just once. After completion, learners receive credit, and the offering moves into the "Learning History."
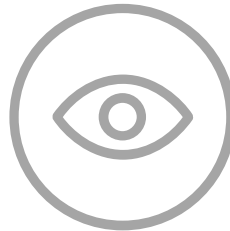
Learner experience

Navigation

Multimedia

Duration

Aesthetics

Deployment