# Maximising Training Recollection through Micro Learning

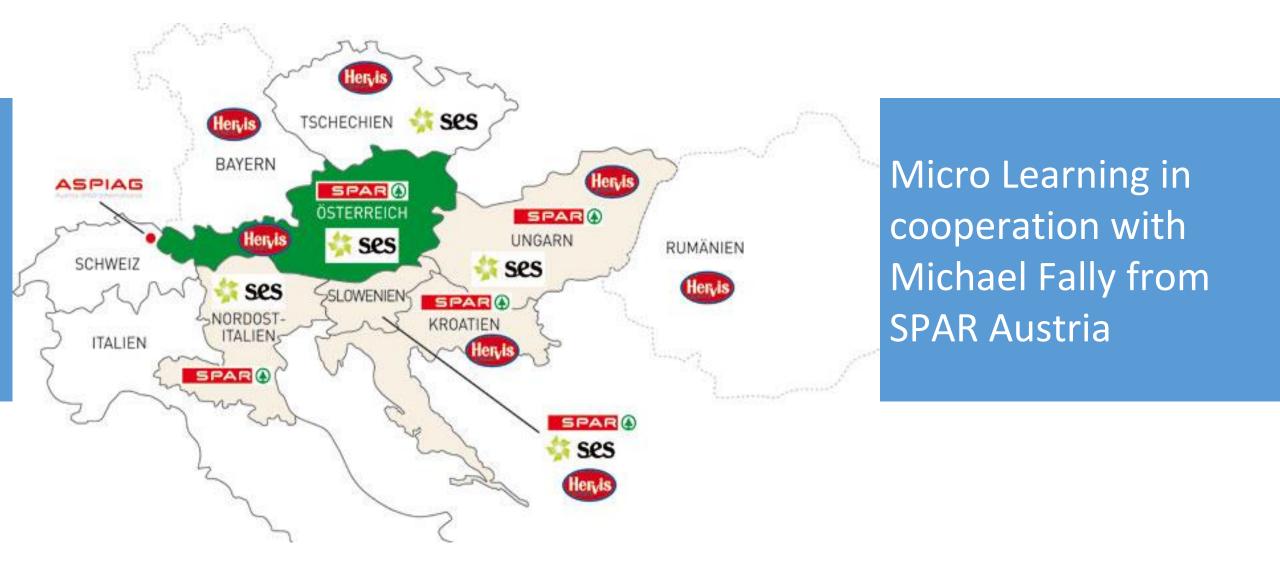


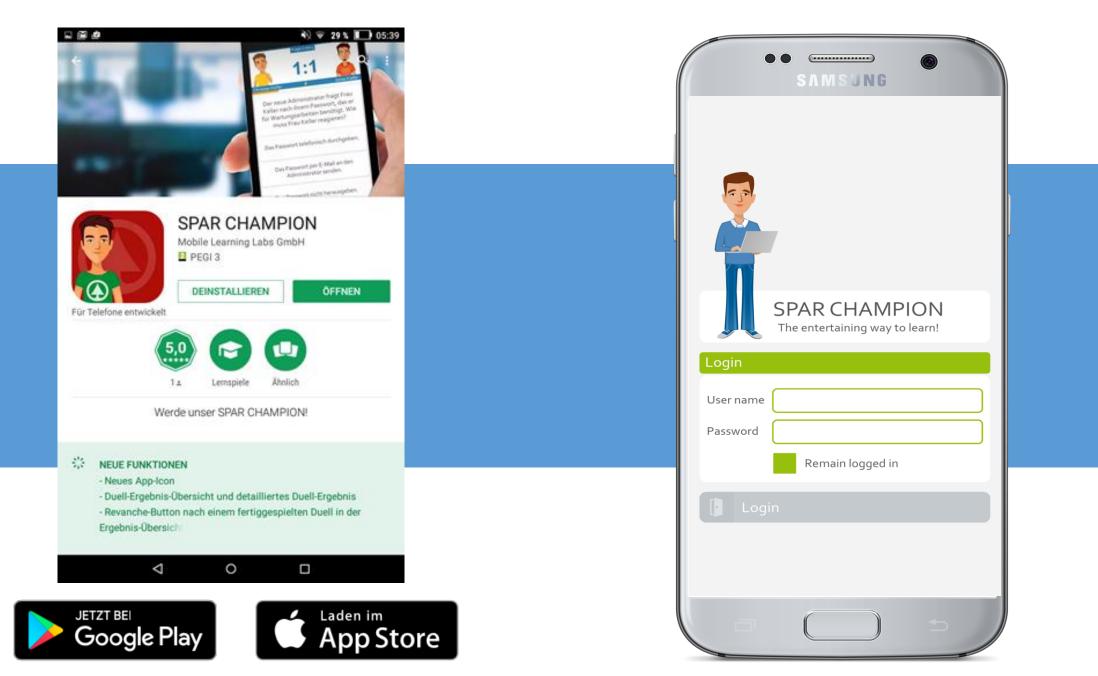
Many thanks for the support by Michael Fally, human resource developement SPAR Österreichische Warenhandels-AG and for the opportunity to use some of his slides.

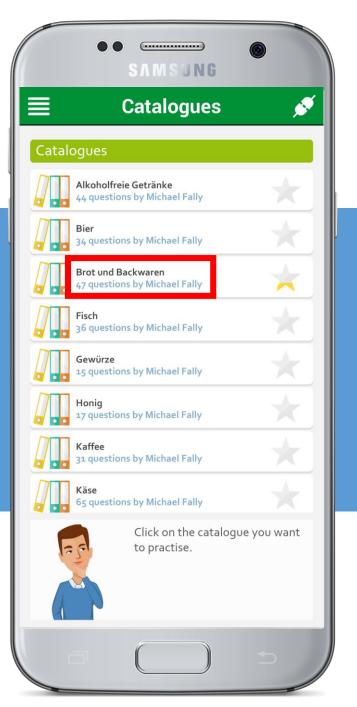


- Foundation: february 2015
- Founder Christian Kiefer
- Our product: Quizzer App for mobile game based learning.
- Quizzer has been distinguished with an E-Learning Award.
- Our first reference customers are
  - SPAR Austria
  - Beiersdorf
  - EDEKA



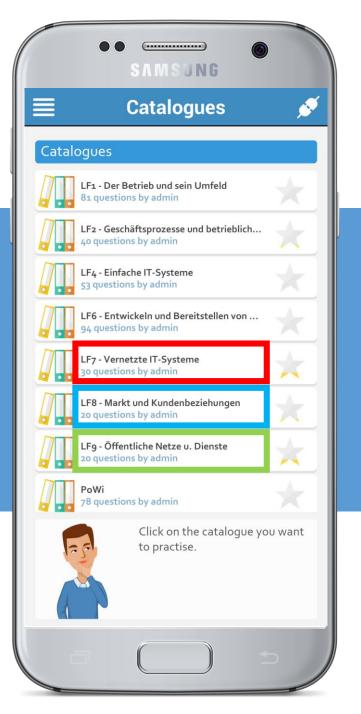






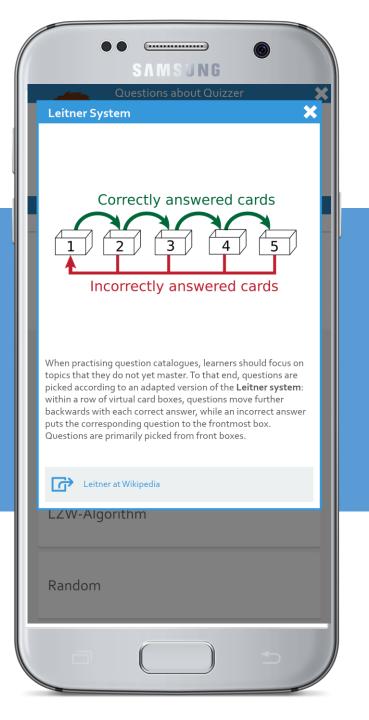
## Micro Learning – one first approach to a definition

- Learning with short and very short learning units (Learning Nuggets)
  - some say with a duration not more than 5 minutes,
  - others say with a content not more than 40 questions/tasks
- to foster occasional and spaced learning.



# A nearer approach to a definition for Micro Learning with regard to the experience with our customers

- Learning with Learning Nuggets,
  - which have a learning goal,
  - which are self-contained and, therefore, enable complete learning,
  - which can use modularly as a piece of a bigger learning goal, e.g. a vocational training with a duration of 3 years,
  - with if possible not more than approx. 40-50 questions/ tasks
  - and which can interrupt at any time in such a way, that the occasional and spaced learning approach is possible for longer Learning Nuggets, too.



- To foster occasional and spaced learning it is necessary to provide the Learning Nuggets in such a way,
  - that the learner receives with each question/task an immediate feedback/result,
  - that on the basis of the result the learner can learn further,
  - that the learner can interrupt at any time,
  - that the learner can restart learning in accordance with his current stage of learning.



#### A definition from a university

Im weitesten Sinne kann Microlearning als das Lernen mit Microcontent, also mit kleinen und kleinsten Lerninhalten, verstanden werden. Im betrieblichen Kontext bezeichnet Mikrolernen als Sammelbegriff verschiedene Lernaktivitäten und Lernmodelle, die in mannigfaltige lerntheoretische und didaktische Zusammenhänge eingebunden sind. In Verbindung mit Mobilfunktechnologien ermöglicht Microlearning ein ubiquitäres, also allgegenwärtiges Lernen und unterstützt den kontinuierlichen Lernprozess im Alltag in kleinen Einheiten, sowohl hinsichtlich der zeitlichen Ressourcen als auch des Umfangs (Zietz et al. 2010; Hug 2010).

Quelle: **Prof. Dr. Michael H. Breitner u.a.** (2011): Verführerische Wissenshäppchen, Personalführung 2/2011, https://www.dgfp.de/wissen/personalwissendirekt/dokument/86216/herunterladen

#### The trial of a translation

In the broadest sense it is possible to think about MicroLearning as learning with Microcontent, hence with small and very small learning content. In the context of a company Microlearning describes different learning activities and models integrated into manifold learning theory and didatic contexts. In conjunction with mobile technology MicroLearning enables ubiquitous, hence omnipresent learning and fosters the continuous learning process, with regard to the time resources as well as to the extent.

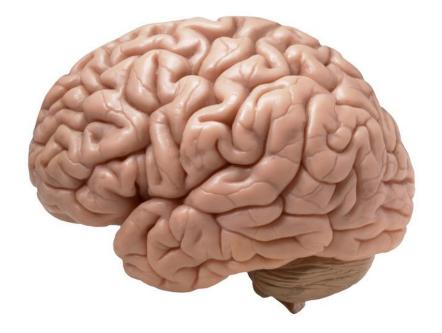


### The best delivery of Micro Learning is digital and

mobile.

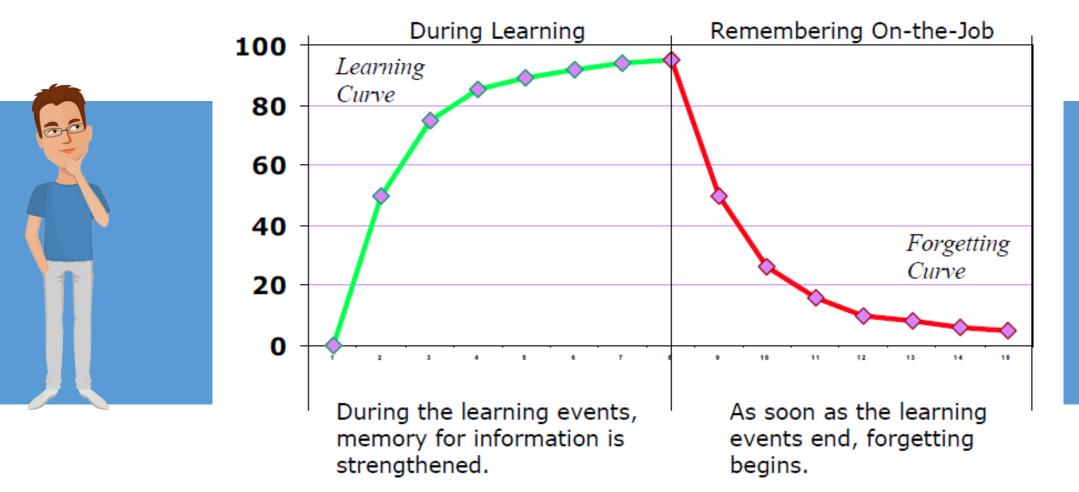
# Why Micro Learning

# A journey into the brain





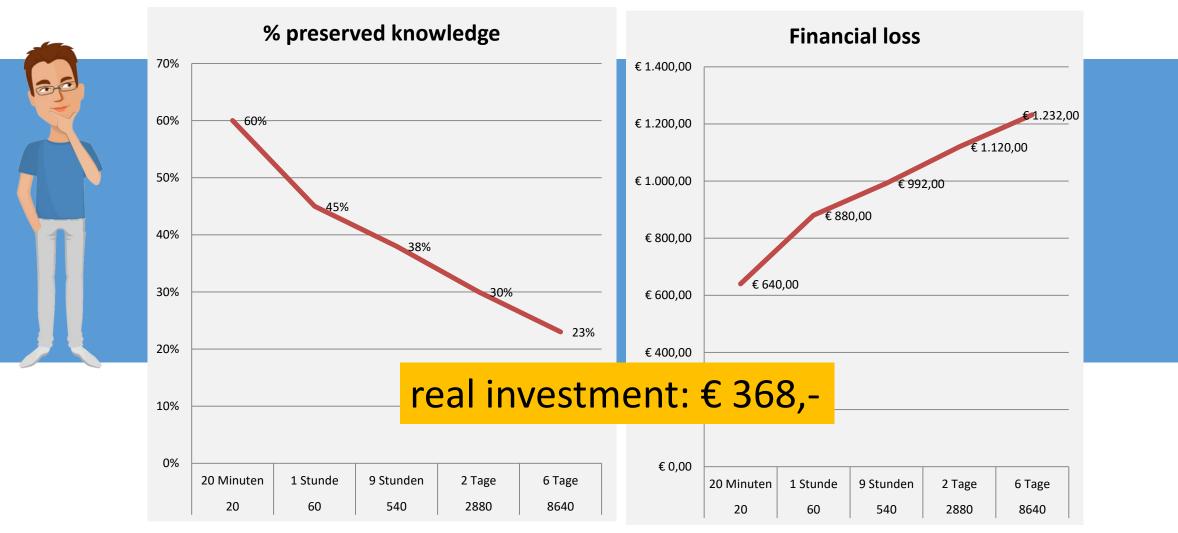
## Mobile Learning Labs GmbH Typical learning and forgetting curve



Source: THALHEIMER Will (2006): Spacing Learning Events Over Time: What the Research Says, http://willthalheimer.typepad.com/files/spacing\_learning\_over\_time\_2006.pdf

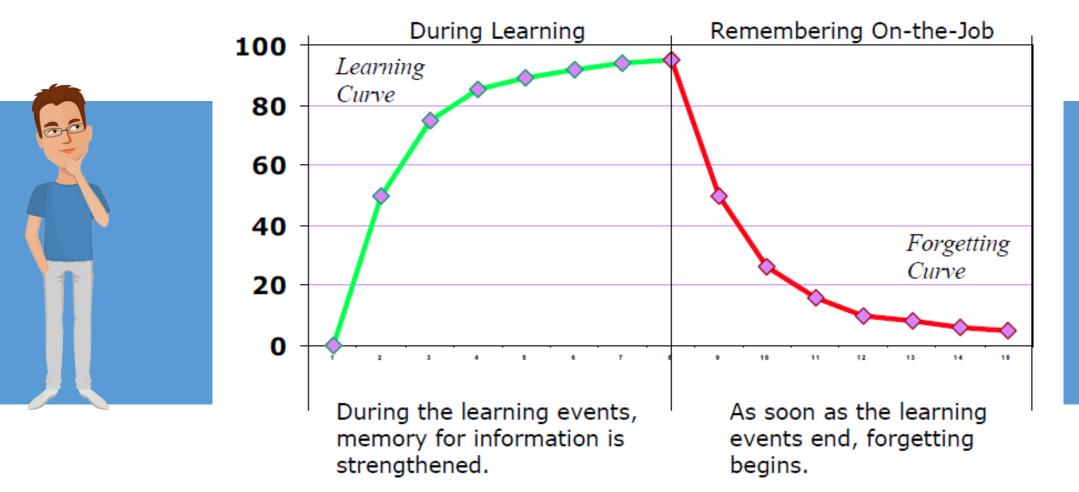
## Mobile Learning Labs GmbH Forgetting costs €€€€€

Assumption: Investment: 2 days seminar, costs: € 1.600,-



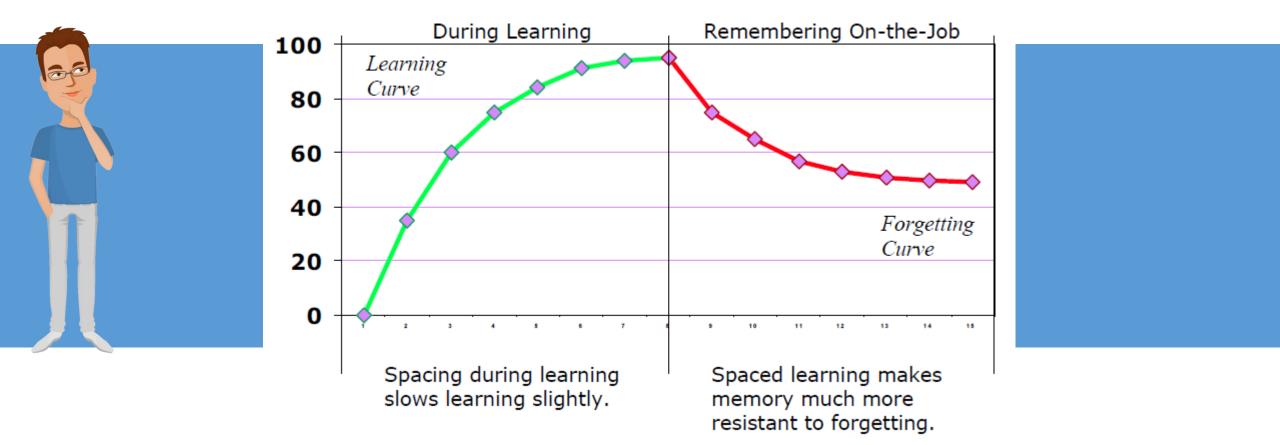
Presentation after: http://www.festo-didactic.co.uk/gb-en/news/forgetting-curve-its-up-to-you.htm?fbid=Z2IuZW4uNTUwLjE3LjE2LjM0Mzc

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Source: THALHEIMER Will (2006): Spacing Learning Events Over Time: What the Research Says, http://willthalheimer.typepad.com/files/spacing\_learning\_over\_time\_2006.pdf

## Learning and forgetting with Spacing during learning



Quelle: THALHEIMER Will (2006): Spacing Learning Events Over Time: What the Research Says, http://willthalheimer.typepad.com/files/spacing\_learning\_over\_time\_2006.pdf

## Learning and forgetting with Spacing On-the-Job



Quelle: THALHEIMER Will (2006): Spacing Learning Events Over Time: What the Research Says, http://willthalheimer.typepad.com/files/spacing\_learning\_over\_time\_2006.pdf

The following findings are highlighted in the report of Thalheimer Will:

- Repetitions—if well designed—are very effective in supporting learning.
- Spaced repetitions are generally more effective than non-spaced repetitions.
- Spacing is particularly beneficial if long-term retention is the goal—as is true of most training situations. Spacing helps minimize forgetting.
- Wider spacings are generally more effective than narrower spacings, although there may be a point where spacings that are too wide are counterproductive.
- One way to utilize spacing is to change the definition of a learning event to include the connotation that learning takes place over time—real learning doesn't usually occur in one-time events.

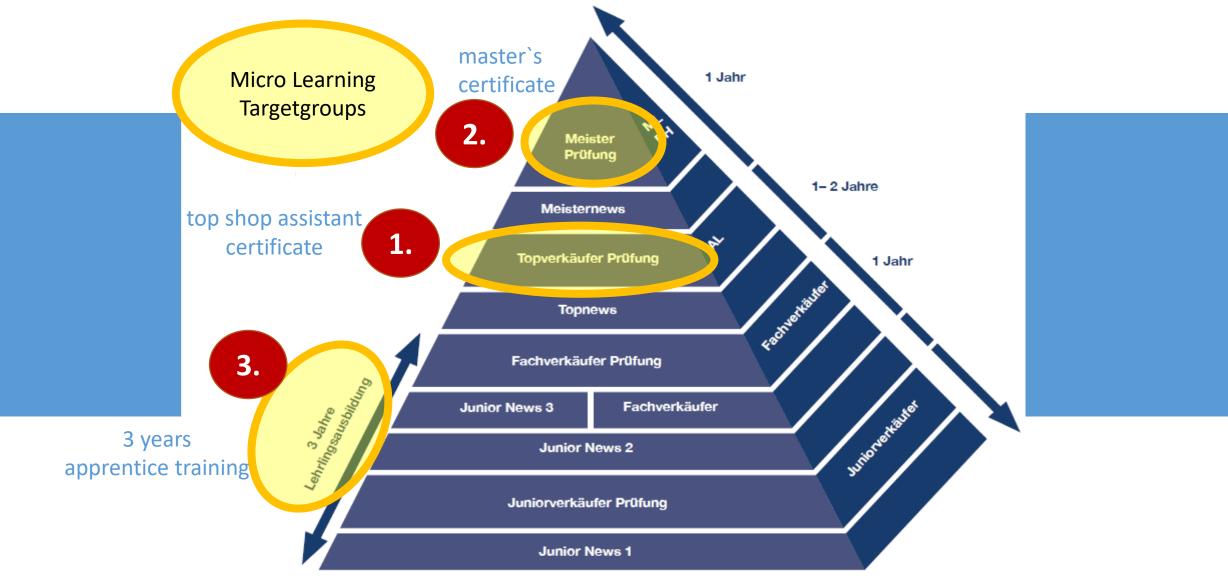
# Insights



- "Mobile Learning" at any time (on- and offline)
- "Small" Learning Nuggets (or Learning Snacks)
- Time-shifted and repetitive learning
- Fun is allowed!

# Examples of Learning Nuggets

## SPAR vocational training pyramid



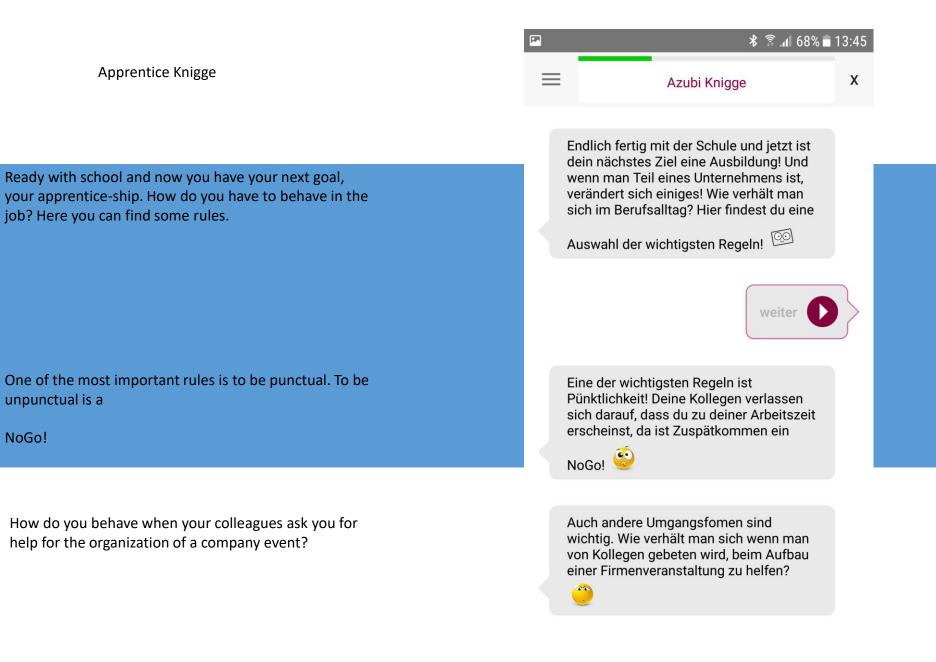
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📃 Catalogue 💉		📃 📃 Catalogue 💉
Brot und Backwaren		Topverkäufer Teilbereich
Bread and bakery products		Mitarbeiterführung Top shop assistant subsection staff leadership
by Michael Fally		by admin
Statistics		Statistics
Questions: Questions answered: 47 23		Questions: Questions answered:
Correct answers:Recently correct:52.2%12		Correct answers: Recently correct: 22.2% 2
Real Play duel		🔀 Play duel
Practise catalogue		Practise catalogue
Save catalogue on device		Save catalogue on device

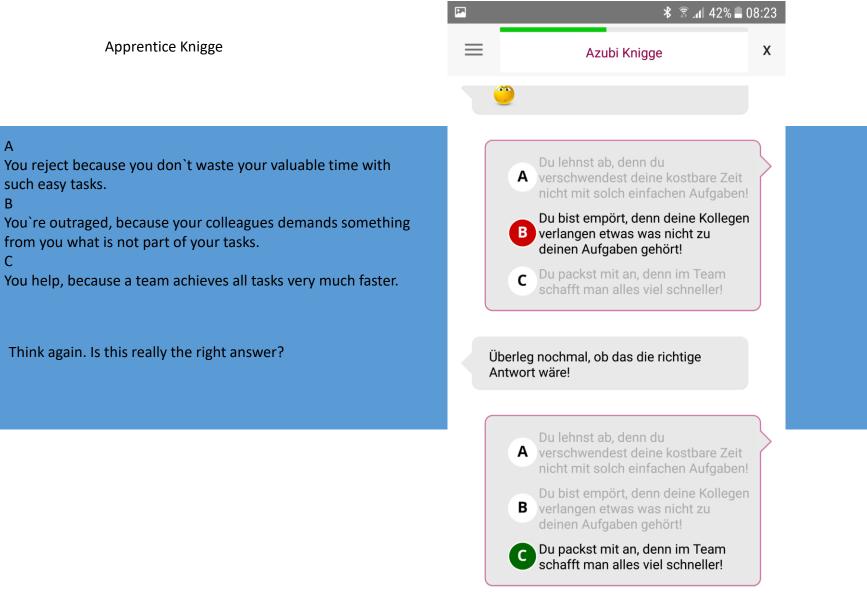
# Example vocational training retail salesman/woman (duration 3 years)

Presentation of goods and selling method (one of 240 learning videos with 1400 tasks/questions) https://prozubi.de/courses/course/gratis-modul-verk%C3%A4ufer-in-158/lesson/warenpr%C3%A4sentation-und-verkaufsformen-237

Warenpräsentation und Verkaufsformen	Andere Lektionen in diesem Modul
Hier lernst Du alles über die Warenpräsentation und Verkaufsformen.	Vorwärtskalkulation
	Lagerarten
	Bezugskalkulation
	Warenpräsentation und Verkaufsformen
INOZODI	Echtheit von Geldscheinen prüfen
	Erfüllung eines Kaufvertrages
warenpräsentation und	Grundlagen der Sortimentsstruktur
Verkaufsform	🗋 Fragetechniken
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▶ 3:33 ◄) 🌣 🗔	🗋 Warenannahme
Viel Spaß!	
Zum Quiz dieser Lektion	

# Example of a Learning Snack





#### А

such easy tasks.

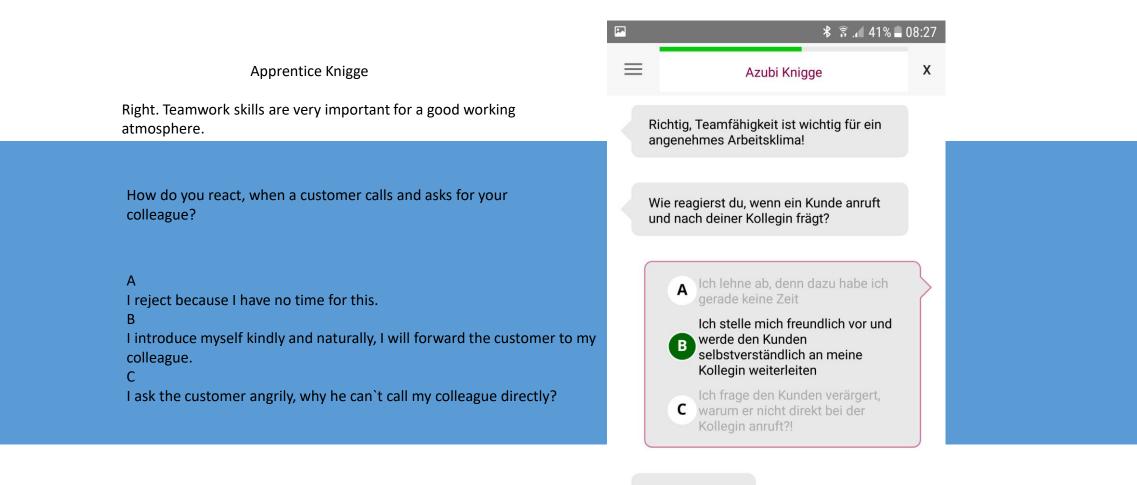
#### B

from you what is not part of your tasks.

#### C

You help, because a team achieves all tasks very much faster.

Think again. Is this really the right answer?



Very good!



You have nothing to do at the moment and you want to check Facebook fastly. Is it allowed?

Du hast gerade nichts zu tun und möchtest schnell Facebook checken. Darfst du das?

Apprentice Knigge	Image: Solution of the second sec
A 5 minutes are okay. B You should not use the internet privately on the job. C Of course, because it is always important to be Up to date.	Darfst du das? A 5 Minuten sind in Ordnung B Privat sollte man auf der Arbeit nicht surfen C Selbstverständlich, denn es gehört dazu immer Up to date zu sein!
That's not right.	Das ist nicht ganz richtig!
	<ul> <li>A 5 Minuten sind in Ordnung</li> <li>B Privat sollte man auf der Arbeit nicht surfen</li> <li>C Selbstverständlich, denn es gehört dazu immer Up to date zu sein!</li> </ul>
	Super!

Our role as instructional designers is not just to maximize learning, but also to minimize forgetting.

Mag. Michael Fally Konzern-Personalentwicklung

SPAR Österreichische Warenhandels-AG

**Georg Jäntgen** Customer Relationship Management

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