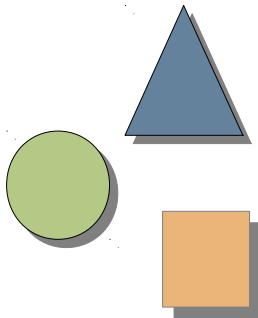


02. Self Management

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Softwaretechnologie
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2015-0.2, 11.04.15
<http://st.inf.tu-dresden.de/asics>

- 1) Time and task management
- 2) Goal management
- 3) Project management
- 4) Exam management



- ▶ Christine Stickel-Wolf, Joachim Wolf: Wissenschaftliches Arbeiten und Lerntechniken. Erfolgreich studieren – gewusst wie! Gabler, 5., aktualisierte und überarbeitete Auflage 2009
 - Mehr Erfolg im Studium und beim Promovieren
 - Tipps zum Wissenserwerb
 - Tipps zur Erstellung einer schriftlichen wissenschaftlichen Arbeit
 - Tipps für die Wissenspräsentation
 - Tipps für eine effektive und effiziente Studienplanung und -organisation
- ▶ [Fiedler] Fiedler, R. Controlling von Projekten – Projektplanung, Projektsteuerung und Risikomanagement; Vieweg Verlag 2005
- ▶ [Jenny-2] Bruno Jenny. Prüfungsvorbereitung - aber richtig! Tipps vom Prüfer. Vdf Hochschulverlag AG



Referenzen

- ▶ Andy Hunt: Pragmatisches Denken und Lernen - Refactor Your Wetware. Hanser-Verlag, 2009

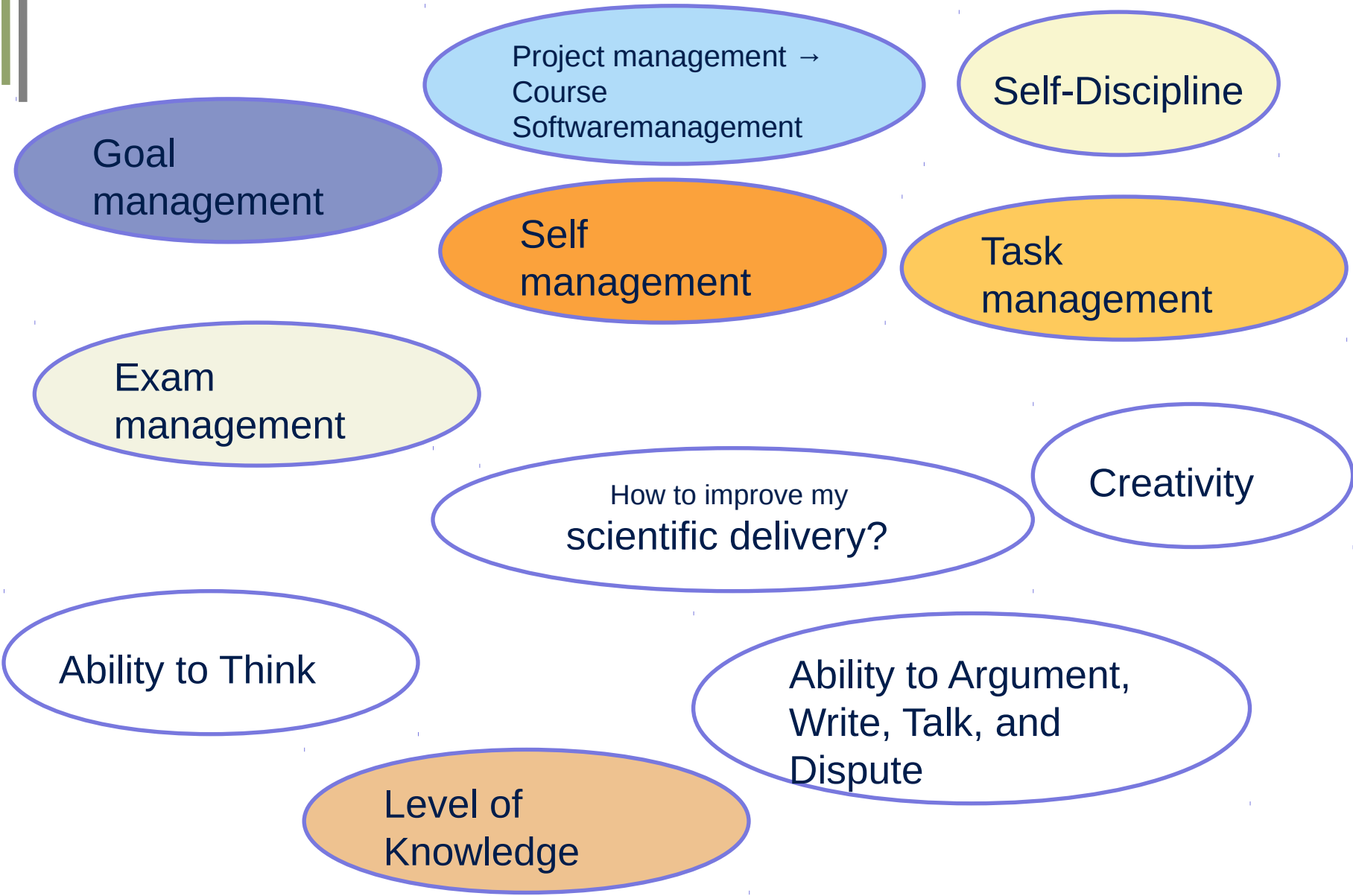
„Verlassen Sie die Tastatur, um hartnäckige Probleme zu lösen.“
Andy Hunt

- ▶ Course “Software project management”, summer period

Self management means to manage the self-project

Aspects of Scientific Working

5



02.1. Time and Task Management

6



Task Management with ALPEN-Method (TLBDC)

7

- A** *Aufgaben* (Analyze and list tasks)
- L** *Length* of tasks
- P** *Pufferzeiten* (Buffer) planing
- E** *Entscheidungen* (decisions) about priorities
(e.g., with *Eisenhower portfolio*)
- N** *Nachkontrolle* (check)

Day	Aufgabe/ Task	Length	Puffer/ Buffer	Entscheidun gen/ Decisions	Nachkontrol le/ Check
June 15	buy Jenny book	1h	-	buy or buy second hand	easy

Eisenhower Portfolio Diagram for Organizing Tasks, Separating Important and Urgent Tasks

8

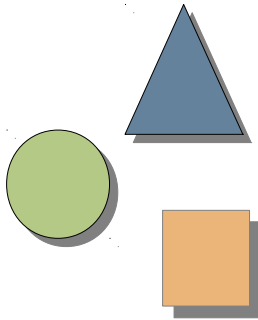
	Not urgent / Nicht dringend	Urgent / Dringend
Important Wichtig	<p><i>Tätigkeiten</i> Langfristige Projekte, Prüfungen, Persönlichkeitsentwicklung, Erholung, Networking</p> <p><i>Empfehlungen</i> Konsequent planen und vorbereiten</p>	<p><i>Tätigkeiten</i> Projekte kurz vor der Deadline, Krise, Notfall</p> <p><i>Empfehlungen</i> Sorgfältig und möglichst ohne Zeitdruck kurzfristig bearbeiten</p>
Not important Nicht wichtig	<p><i>Tätigkeiten</i> Triviales, manche Post, Gefälligkeiten, Geschäftigkeiten</p> <p><i>Empfehlungen</i> Abstand nehmen, Nein sagen, wegwerfen</p>	<p><i>Tätigkeiten</i> Störungen: Telefon, Besucher, Tagesgeschäft</p> <p><i>Empfehlungen</i> Rationell und zügig erledigen</p>

- ▶ Use these 4 categories for classifying email

02.2. Goal Management

11

.. for yourself



Goal Analysis

- 1
 - 2
- ▶ Goals for yourself or any kind of project you do must be set pretty clear.
 - ▶ Use ZOPP or PROBLOSS to define
 - a set of problems you solve
 - a set of goals
 - a set of success criteria

Reports

Life

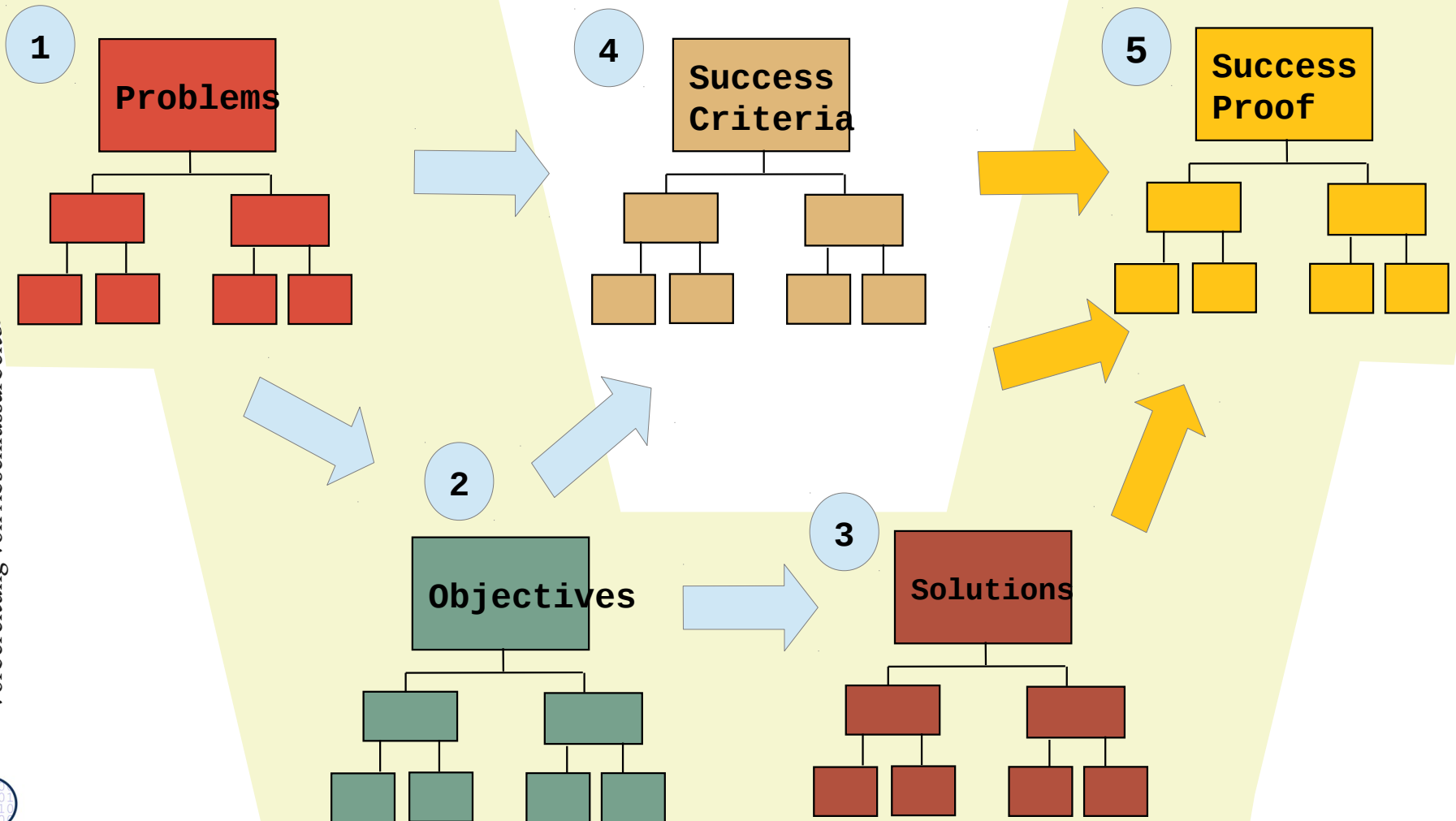
Family

Career

Church

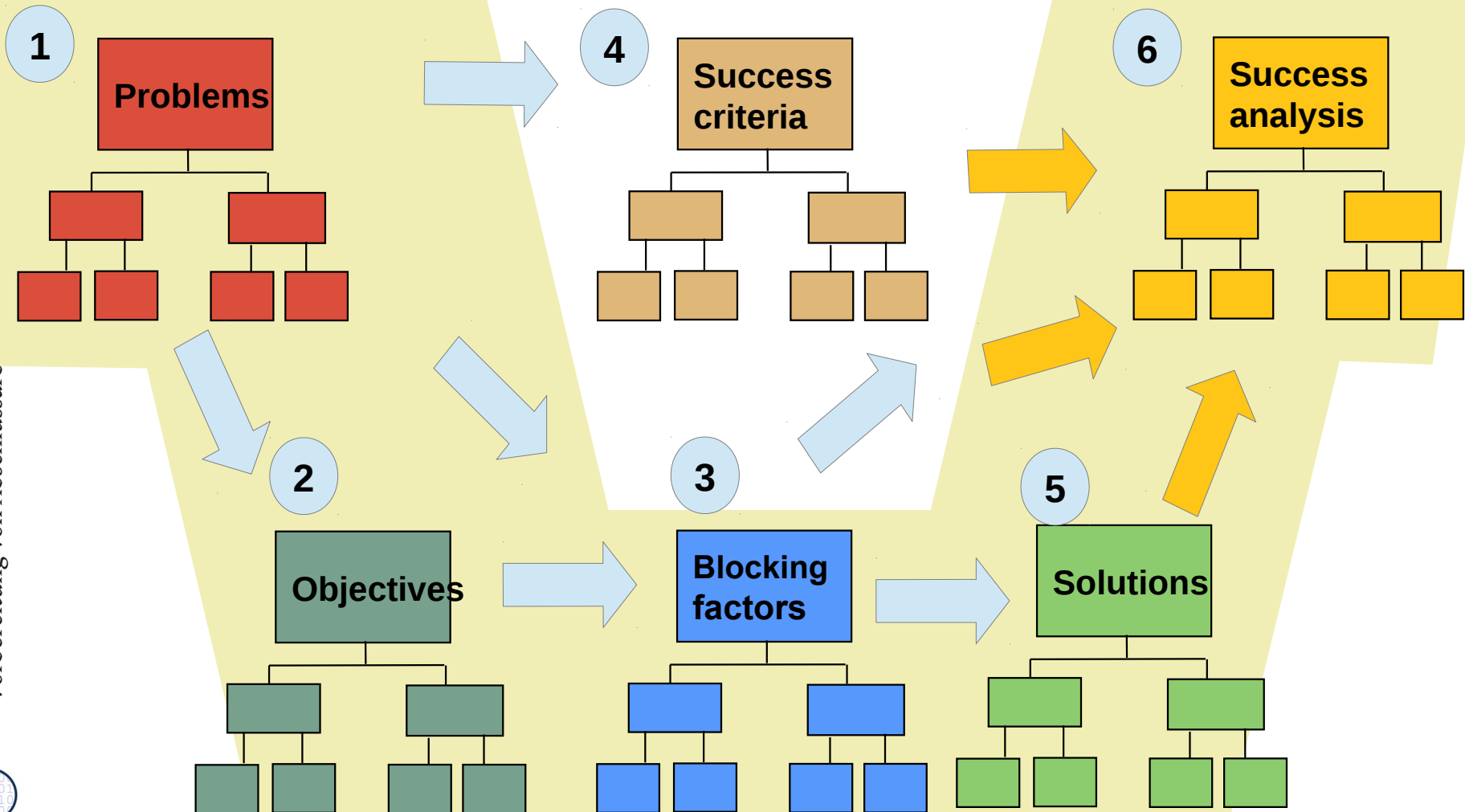
Problem and Goal Analysis POPP/ZOPP

- ▶ POPP (ZOPP) is a *hierarchical* goal-oriented problem-solving method with success proof:
 - With a set of success criteria, it is checked whether the solution solves the problem



Problem and Goal Analysis B-POPP

- ▶ B-POPP is a ZOPP-like problem and efficiency analysis that checks *blocking factors* preventing that objectives are reached.



For Your Research

▶ For all kinds of research

- Bachelor, Master, PhD thesis
- Research paper
- Essay

▶ Do a ZOPP or a B-POPP and refine it over all the duration of the research

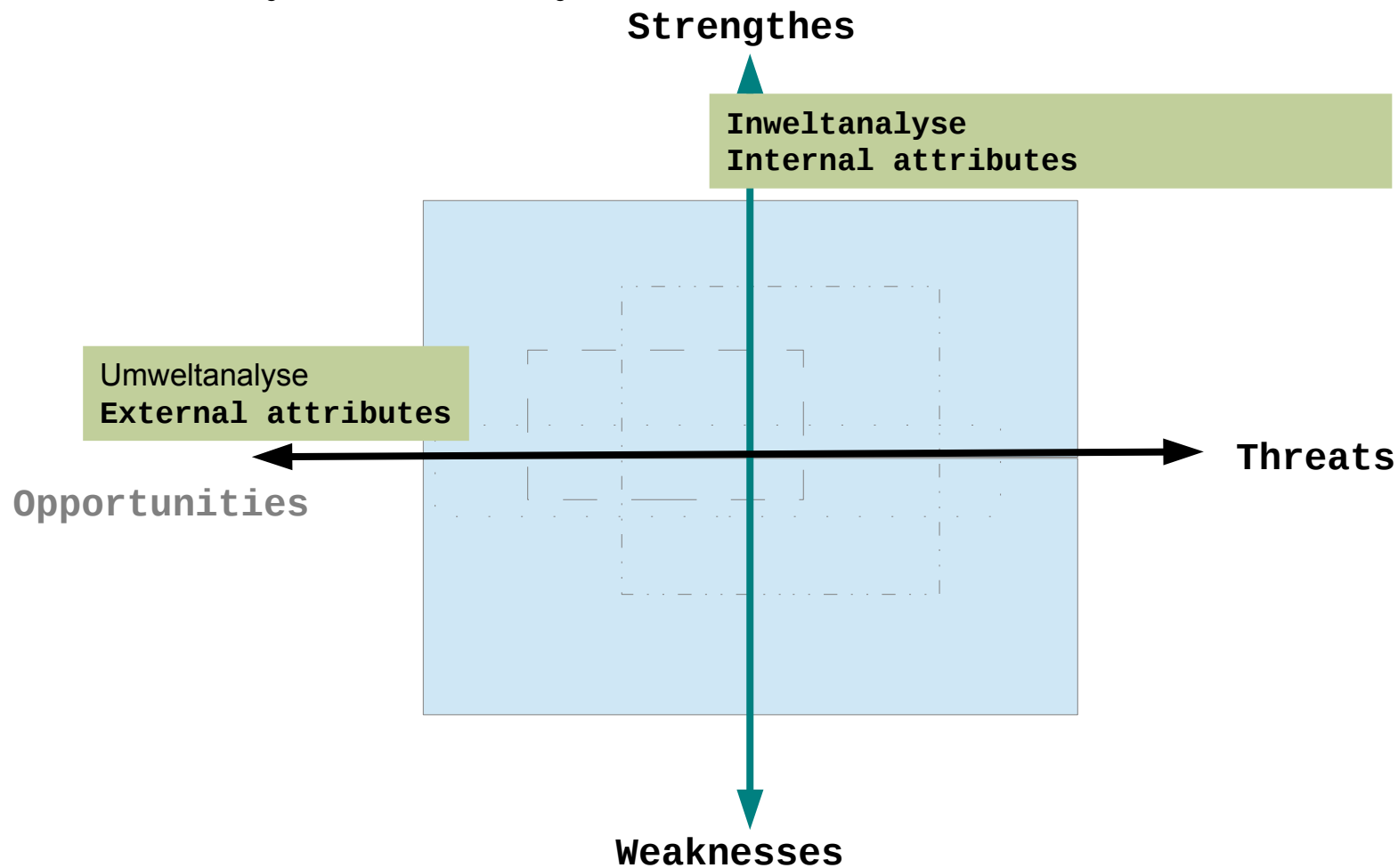
▶ Reasons:

- Goal analysis helps to think
- Hierarchical goal analysis helps to focus on the more important issues
- If you do not solve a real problem, your research is not relevant
- If your decomposition of the problem is good, you may say something about the *solution's coverage of the problem*:
 - Did I forget to solve a subproblem or are all problems solved? How complete is the solution?
- Usually a good ZOPP or PROBLOSS gives you an introduction for free: just write a paragraph or a section on each of the steps
- In particular, the *research contributions (research results)* become very clear.

1
5

Strategic Goal Analysis

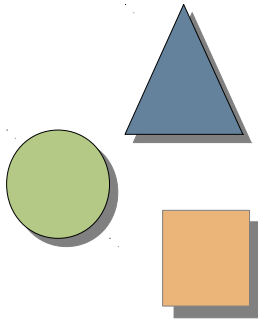
- ▶ Use SWOT to think about yourself: what are your strong points? what are your weak points? which opportunities are around you? which threats? How do they combine with your internal attributes?



02.3. Project Management

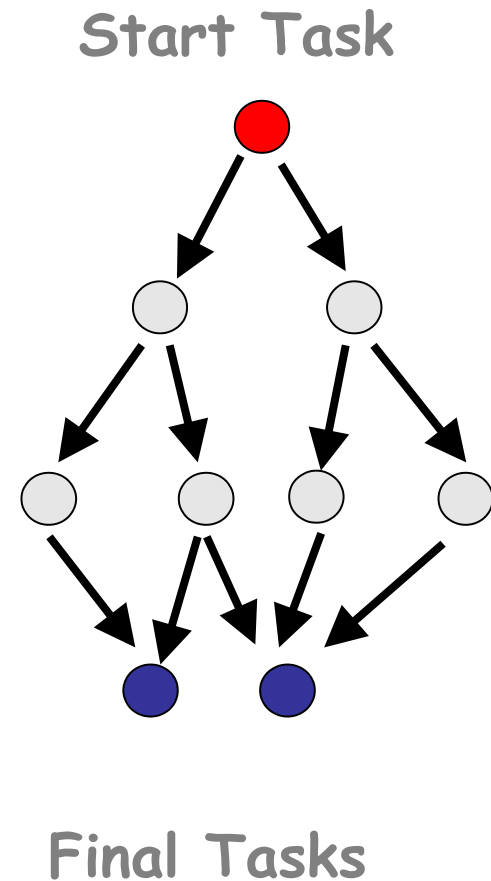
17

Much more in course
"Software Management" (SoSe)



Dependency Graph of Activities

- ▶ Activities have attributes and dependencies:
 - begin, end date
 - consumption of resources
- ▶ Start with an activity list
- ▶ Add dependencies:
 - Dependencies should be acyclic

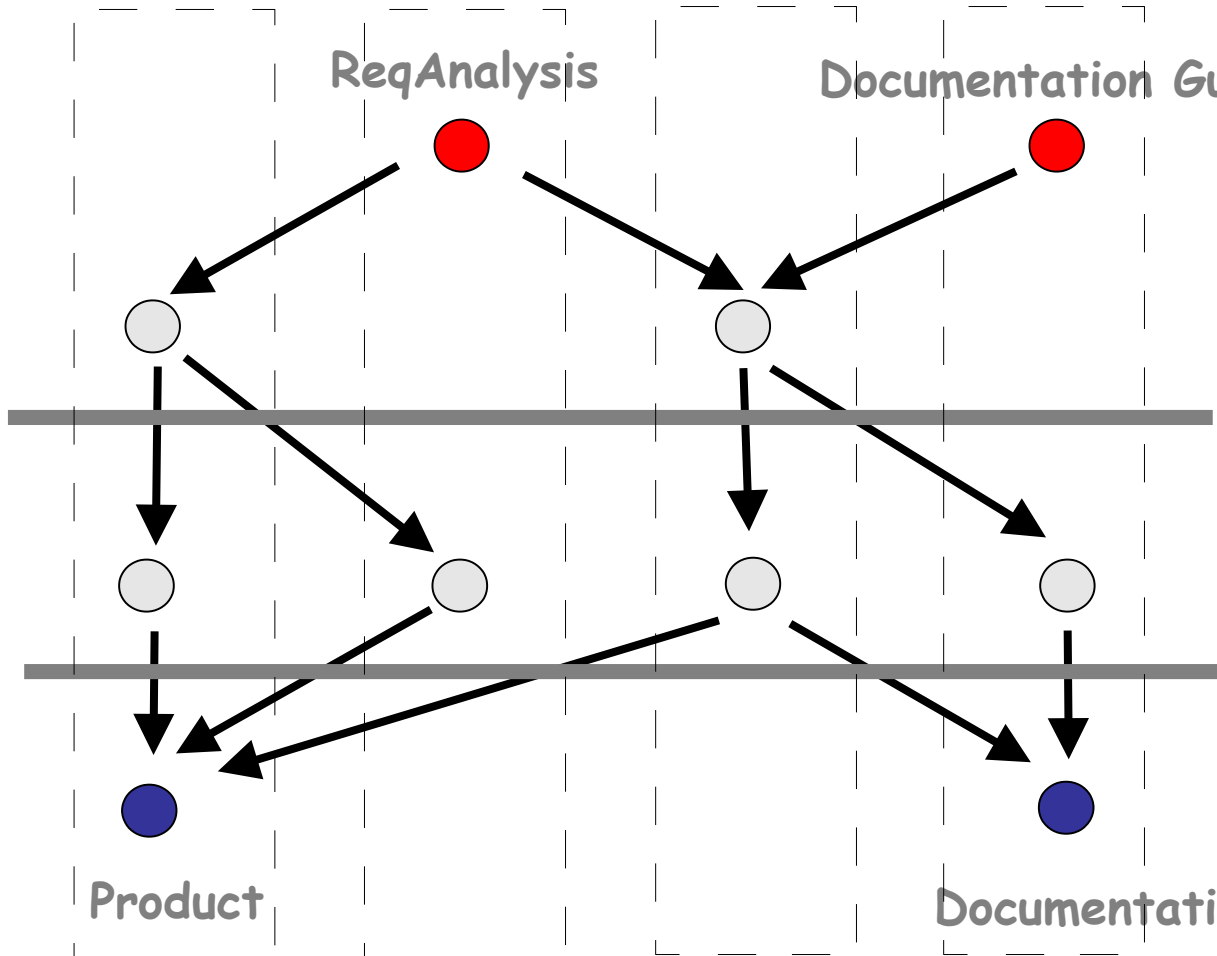


Dependency Graph with Milestones and Swimlanes

Product User Test Understandability

ReqAnalysis

Documentation Guidelines



Milestone:
border of
a layer in
the dag

Task List and Milestone Graph Integrated (Vorgangsliste)

- ▶ Activity list can be put up in Excel, Calc, or MS Project

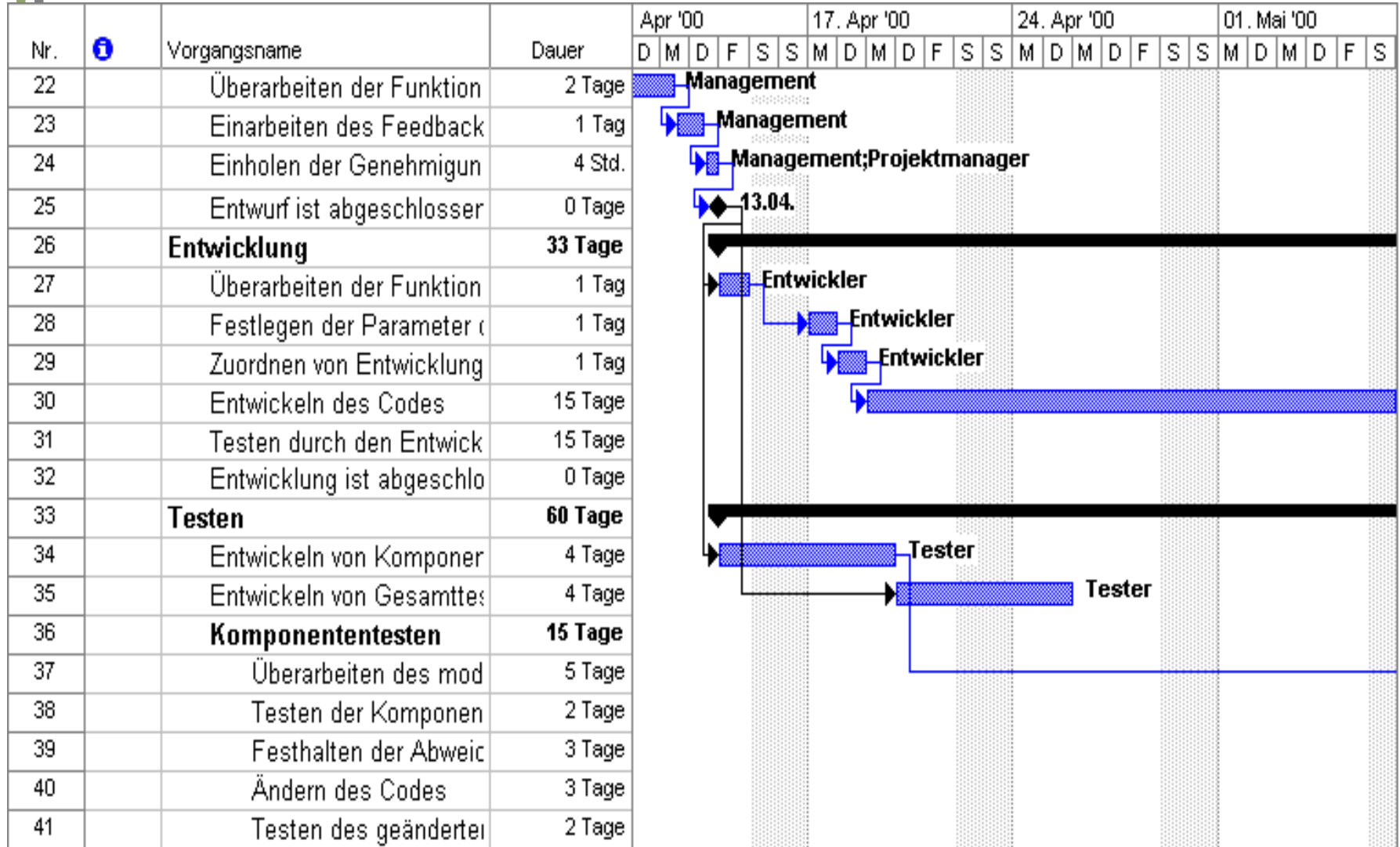
Responsible	Workedout	Version				
Andy	Suny	0,3				
Due date	Milestone graph	Task with Milestone	Date	Report	Estimated	Start
	C1 C2 C3				Personweeks	
31.03.03		Design ready	20.03.03	Johnny		01.03.03
30.04.03		First prototype			4	01.04.03
10.05.03		Test first prototype			3	10.04.03
31.05.03		Second prototype			4	01.04.03
10.06.03		Test Second prototype			3	05.04.03
30.06.03		Acceptance test done			5	01.06.03

[Andersen, Projektstyrning. Student Book, Sweden]

GANTT Chart in MS Project

2
1

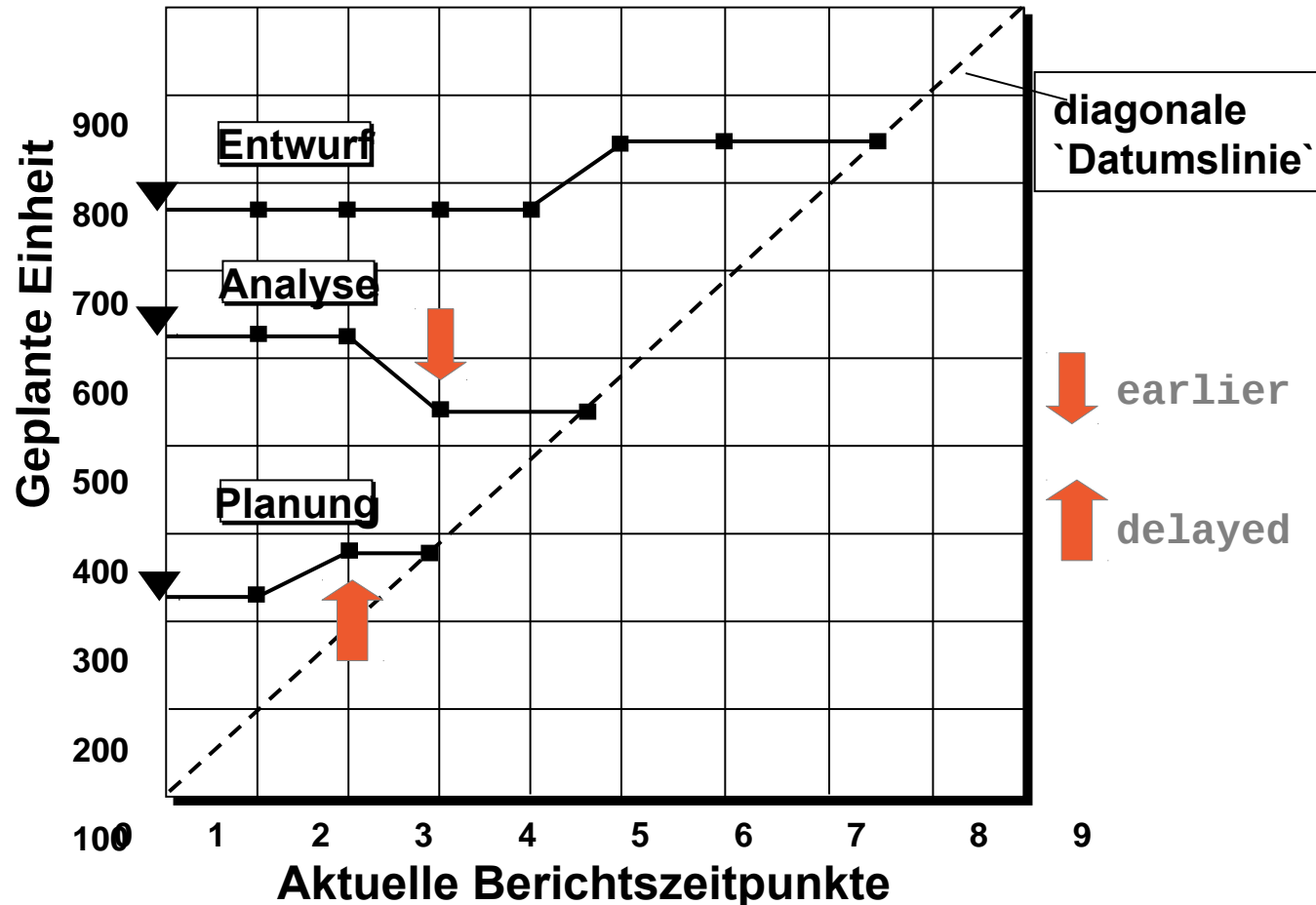
Vorbereitung von Abschlussarbeiten, © Prof. Uwe Aßmann



Project Controlling with Trend Diagram

- ▶ Das **Trenddiagramm** erlaubt einen Vergleich von IST - SOLL über alle Berichtszeitpunkte hinweg
 - Horizontal laufende Pfade für Verfolgung von speziellen Aktivitäten
 - Auf diagonaler **Datumslinie** sind die geplanten Einheiten gleich den geschätzten aus der aktueller Berichterstattung

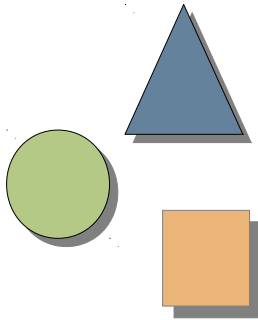
- ▶ Erstellt Trenddiagramme für
 - Kosten
 - Termine
 - Ressourcen



02.4. Exam Management

23

.. for oral and written exams



Do's for Oral Exams

- ▶ For an exam about a course with n SWS, reserve n weeks to learn.
- ▶ Try to learn continuously along the lectures.
- ▶ Produce clusters of the whole course (yes, or mindmaps)
- ▶ Find at least one friend as a learn mate; invite people for coffee
- ▶ Exercise a dialogue with the friend: “You are a project leader in a company. Your friend is a newbie in your team and asks stupid questions. Answer them, explain him as good as you can.”
- ▶ After a while, change roles (“pair training”)
- ▶ There are three types of questions in an oral exam:
 - Survey questions: Tell about a subject as good as you can, with precise definitions, clear sentences, quickly.
 - Detail questions: If you don't know the answer, don't be desperate because they won't fail you, but degrade your mark somehow.
 - Transfer questions: They check if you can transfer a part of the course to an unknown problem or example.
 - Cross-lecture questions: They check whether you can see cross-connections between the courses of a complex exam.
- ▶ The latter two are difficult and if they go well, it looks like a very good exam.

2
4

Blooms Taxonomy of Learning Levels

- ▶ [Wikipedia, Lernziele] Bloom defined 6 levels of knowlewge:
- ▶ **Apprenticeship (Lehrlingsschaft)**
 - **Kenntnisse / Wissen:** Kenntnisse konkreter Einzelheiten wie Begriffe, Definitionen, Fakten, Daten, Regeln, Gesetzmäßigkeiten, Theorien, Merkmalen, Kriterien, Abläufen; Lernende können Wissen abrufen und wiedergeben.
 - **Verstehen:** Lernende können Sachverhalt mit eigenen Worten erklären oder zusammenfassen; können Beispiele anführen, Zusammenhänge verstehen; können Aufgabenstellungen interpretieren.
- ▶ **Journeyman level (Gesellschaft)**
 - **Apply/Anwenden: Transfer** des Wissens, problemlösend; Lernende können das Gelernte in neuen Situationen anwenden und unaufgefordert Abstraktionen verwenden oder abstrahieren.
 - **Analysis/Analyse:** Lernende können ein Problem in einzelne Teile zerlegen und so die Struktur des Problems verstehen; sie können Widersprüche aufdecken, Zusammenhänge erkennen und Folgerungen ableiten, und zwischen Fakten und Interpretationen unterscheiden.
 - **Syntesis/Synthese:** Lernende können aus mehreren Elementen eine neue Struktur aufbauen oder eine neue Bedeutung erschaffen, können neue Lösungswege vorschlagen, neue Schemata entwerfen oder begründete Hypothesen entwerfen.
- ▶ **Master level (Meisterschaft)**
 - **Beurteilung:** Lernende können den Wert von Ideen und Materialien beurteilen und können damit Alternativen gegeneinander abwägen, auswählen, Entschlüsse fassen und begründen, und bewusst Wissen zu anderen transferieren, z. B. durch Arbeitspläne.

Level of Knowledge according to Krathwohl

- ▶ [David R. Krathwohl. A Revision of Bloom's Taxonomy: An Overview] presents a 2-dimensional **knowledge grid** crossing an learning object and a verb

- http://www.unco.edu/cetl/sir/stating_outcome/documents/Krathwohl.pdf
- <http://www.celt.iastate.edu/teaching-resources/effective-practice/revised-blooms-taxonomy/>

	remember	understand	apply	analyze	evaluate	create
factual						
conceptual						
procedural						
meta-cognitive						

Learning to Learn 8 Hours a Day

- ▶ Get up early.
 - Buy a wake up clock with a incredible sound (so that your sleep is really disturbed)
 - Position it at the other end of your room (so that you have to get out of bed to switch it off).
 - Be honest, everything else fails. (I was a student myself).
- ▶ Every 2 hours, walk outside for 10 minutes.
- ▶ Use self-rewarding:
 - Employ a microwave after 22:00 to reward yourself. Cook vegetables.
 - Do not use beer :-), you will need a lot and it makes you fat.
 - Plan a travel after the exam, e.g., to Alsace in autumn to drink wine in the wine harvest.

2
7





Dangers for Focussing

- ▶ “Relax coding” (Entspannungscodeln)
 - Programmers start to program “scripts” under pressure, to do something interesting
- ▶ Gaming: Role-games allow to escape reality, but **reality bites**
- ▶

Positive Rewards for Hard Work

Every day:

- ▶ Get fresh air
- ▶ Jogging, swimming in the morning
- ▶ Do something nice after 20:00 in the evening, get away from the PC

Over the weekend:

- ▶ Visit a friend over the weekend
- ▶ Visit another area of Germany and visit musea, music concerts, (do something completely different)
- ▶ Walk, hike, or bike in the Saxonian Switzerland or along the Elbe

The End

- ▶ Some slides are courtesy to Dr. Birgit Demuth