Weingarten competency framework

Deutsche Version

The rapid pace of digital transformation not only changes our daily life, but also has profound effects on education. In order to prepare teachers for the requirements of future teaching environments the transfer of digital competencies is essential.

The Weingarten competency framework of digital skills for teachers builts up on those requirements and serves as a comprehensive foundation which is based on the DigCompEdu framework.

Framework description

The model consists of 3 competencies (“digital school-related competencies”, “media subject-related competencies” and “media education” as well as their overlaps), which are divided into 10 sub-areas. These sub-areas comprise a total of 152(4) individual competencies with their respective title of competencies and description of competencies. The 152(4) competencies are divided into the three-part “basic competencies”, “detail competencies” and “advanced competencies”. The basic competencies are a mixture of competencies, which are at different taxonomy levels (knowledge, application, further development). The university of education Weingarten has derived 8 abstract competencies for its course manual.

Within the area of „digital school-related competencies“, the focus is on enabling prospective teachers to use digital media for professional communication with learners, parents and non-school stakeholders, for cooperation within the school community, for their own professional development and for digital school development in a contextual-based and goal-oriented manner.

In the area of „media subject-related competencies“, prospective teachers are enabled to systematically integrate digital media into their own lessons and thereby unleash the full potential for their own subject.

In „media education“, the focus is on promoting learners' digital-related competencies. Prospective teachers can guide and support learners in their development in the reflective and responsible use of digital media.

10 sub-areas (e.g. innovation & reflective practice) with overlaps („digital resources“ and „learner guidance“) are assigned to the 3 areas of competence. The competencies fall under these ten sub-areas, each of which was assigned to only one taxonomy level in order to make the model applicable and testable in teaching.

This framework is specially designed to serve as a sound basis for the design and implementation of courses, with the aim of equipping prospective teachers both theoretically and practically for an efficient and ethically responsible use of digital technologies in teaching.

Weingarten competency framework divided into 10 sub-areas

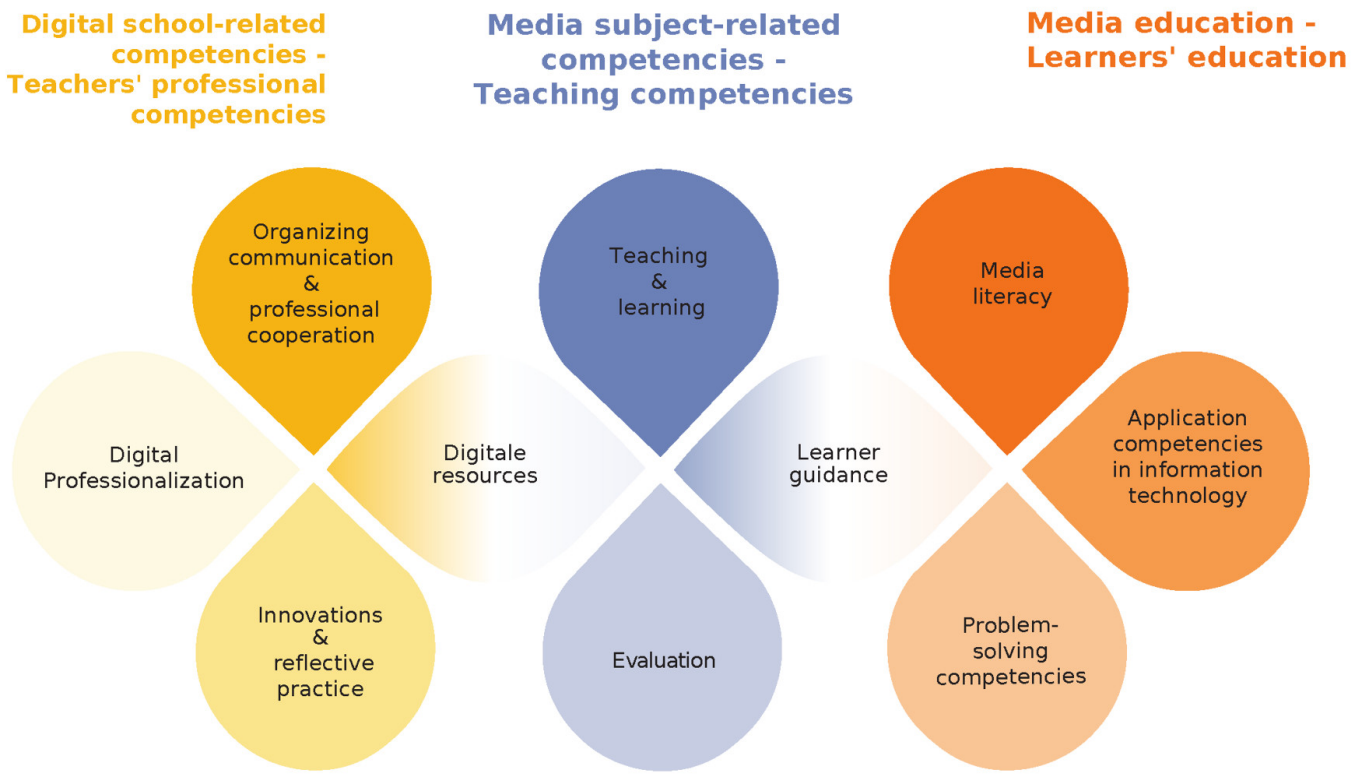

Table overview of the weingarten competency model

The table below describes the Weingarten model in its entirety. The table is divided into three levels, the 3 competency levels. The „basic competencies“, „detailed competencies“ and „advanced competencies“. Within each competency level, there are the 3 competencies areas mentioned above: „Digital school-related competencies“, „Media subject-related competencies“ and „Media education“. A total of 152(4) competencies are described in this hierarchy.

Basic competencies: Digital school-related competencies

Digital school-related competencies
Organizing communication & professional cooperation (with learners + parents + extracurricular stakeholders/third parties)
1 School and class management
2 Synchronous and asynchronous communication and collaboration
3 Project and knowledge management systems
Digital Professionalization (with other teachers)
4 Professional training
5 Online training
Innovations and reflective practice
6 Evaluation of digital teaching strategies
7 Documentation reflection of own learning activities and competences
8 Exposure to digital technologies
9 Developing innovation processes

Basic competencies: Media subject-related competencies

Media subject-related competencies
Digital resources
Legal foundation
10 Copyright and licenses
11 GDPR
12 Personal rights
Search and sustainability
13 Finding digital resources
14 Media management
15 File organization and tools
Design and instruction principles
16 Design principles media
17 Usability
Media development
18 Software
19 Hardware
Teaching and learning
Learning theory principles & models of instructional design
20 Basic instructional design models
21 Media-based learning
Condition analysis (actors & environment)
22 Market, context and target group analysis
23 Technical and organizational requirements
Teaching content
24 Digital learning environments/ LMS
25 Adequacy of media content
Teaching objectives
26 Educational problem
27 Media teaching goal definition
Teaching methods
28 Expository and exploratory methods
29 Problem based and cooperative methods
Media
30 Digital information and communication media
31 E-learning
32 Synchronous and asynchronous management
Evaluation
Learning diagnosis / diagnostics
33 Learning outcome diagnosis/ learning requirements
34 Learning progress
Feedback and planing
35 Digital feedback possibilities
Learner guidance
Learning prerequisites

Media subject-related competencies
36 Socioeconomic factors
37 Technical instruction
Learner activation
38 Cognitive activation
39 Contextual teaching
40 Instruction in open forms of teaching

Basic competencies: Media education

Media education
Media literacy
41 Media literacy
Application competencies in information technology
42 Media projects
43 Media usage
44 Communication and code of conduct
45 Role play in media-based education
Problem-solving competency
Pleasure and addiction
46 Media and data awareness
47 Communication culture
48 Selection capability
49 Media effects
50 Basics of information technology

Detail competencies: Media subject-related competencies

Media subject-related competencies
Digital resources
Legal foundation
51 Sources
52 Open Educational Resources (OER)
53 Creative Commons (CC)
54 Data protection and information security - Communication
55 Data security/data protection
56 GDPR
57 Personal rights
Search and sustainability
58 Search/search strategies
59 Text search
60 Video search
61 Image search
62 Audio search (+Podcasts)
63 Simulation search (3D models)
64 File management

Media subject-related competencies
65 Tools
Design and teaching principles
66 Design principles for Text
67 Design principles for Video
68 Design principles images
69 Design principles audio
70 Design principles simulations
71 Video script
72 Website script
73 Script learning courses/ learner stories/ storytelling
Media development
74 Text software
75 Video software
76 Image software
77 Audio software
78 Simulation software
79 Video Hardware
80 Image hardware
81 Audio hardware
82 Simulation hardware
83 Text file format
84 Image file format
85 Video file format
86 Audio format
87 Simulation format
Teaching and learning
Media
88 Continuous Media
89 Websites/CMS
90 Images
91 Charts (Abstract imagery)
92 Dynamic media
93 Video
94 Audio (Podcast)
95 Dynamic visualizations (which simulates different conditions and processes)
96 Synchronous communication media
97 Chat
98 Video conferences
99 Asynchronous communication media
100 E-Mail
101 Forum
102 Wiki
103 Hybrid communication media (synchronous and asynchronous)
104 Google Drive (Text, Tables, Presentations, ...)
105 Miro

Media subject-related competencies
106 Actionbound
Learning management
107 Blended-Learning
108 Flipped Classroom

Advanced competencies: Digital school-related competencies

Digital school-related competencies
Organizing communication & professional cooperation (with learners + parents + extracurricular stakeholders/third parties)
109 Communication strategies

Advanced competencies: Media subject-related competencies

Media subject-related competencies
Digital resources
110 Chances and dangers
111 Data ethics
112 Search engines and databases
113 Media script
114 User experience
115 Data format
Teaching and learning
Learning theory principles & models of instructional design
116 Media theory
117 Potential of media use cases
118 Learning theory
119 Learning motivation and attention
Condition analysis (actors & environment)
120 Needs assessment
Teaching content
121 Immediate relevance
122 Future relevance
123 Content analysis
124 Content preparation
125 Contextual teaching
Teaching objectives
126 Defining learning goals
127 Media subject-related competencies
Teaching methods
128 Main criteria for teaching methods
Media
129 Media for communication
130 Media for location-based teaching
131 Learning management systems (LMS)

Media subject-related competencies
Learning management
132 Classroom management
133 Hybrid learning management
134 Time management
135 Social management
136 Content management
Evaluation
Learning diagnosis / diagnostics
137 Learning evaluation
138 Learning outcome evaluation
139 Checking of current learning level
140 Qualitative methods
141 Quantitative methods
142 Automated/direct feedback
143 Individual feedback (teacher feedback)
144 Peer feedback
Feedback and planing
145 Learner feedback for course improvement
146 Learner progress to adapt teaching strategies
Learner guidance
Learning prerequisite(s)
147 Individualization
148 Inclusion
149 Prior knowledge of learner
150 Ability to adapt willingness to innovate
Learner activation
151 Interest and motivation
152 Peer learning and tutoring support
153 Competency oriented-classes

Advanced competencies: Media education

Media education
Application competencies in information technology
154 Framework

Tagging

Weingarten competency framework, digital competencies, teachers, school-related competencies, management, communication, collaboration, classroom management, media competency, teaching methodology, learning goals, student motivation, student education, digital ethics.

Disclaimer

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