

Obtaining Edubadges

at Knowledge & Information
Rotterdam University of Applied Sciences

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Table of contents

Assessing knowledge and skills (extra-curricular)	3
K&I Rotterdam University of Applied Sciences Edubadges	5
<i>National taxonomy Information Literacy (SHB)</i>	5
<i>Relation to the Dreyfus model</i>	6
<i>Library Desk Research Novice</i>	7
<i>Library Desk Research Advanced Beginner</i>	8
<i>Library Desk Research Competent</i>	9
<i>Library Desk Research Competent : sub-badge Obtaining sources</i>	10
<i>Library Desk Research Competent : sub-badge Assessing sources</i>	11
<i>Library Desk Research Competent : sub-badge Processing sources</i>	12
<i>Library Desk Research Competent : sub-badge Professional literature research</i>	13
Glossary	14
Bibliography	16

About this document:

This document has been developed by Knowledge & Information and Stadslab Rotterdam, as a result of the pilot Edubadges in co-operation with SURF. From 2018 – 2020 Stadslab Rotterdam, together with the Rotterdam University of Applied Sciences and several other educational institutions, has experimented with the use of open badges in or alongside mainstream education. This document has been drafted to familiarise staff and students of the Rotterdam University of Applied Sciences with the available Edubadges that are being issued by the Rotterdam University of Applied Sciences.

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Assessing knowledge and skills (extra-curricular)

Edubadges are digital insignia (symbols) that indicate that the recipient has specific knowledge or skills. They offer a way to acknowledge acquired skills from *extra-curricular* activities. These badges can be obtained throughout the year and are not tied to certain fixed testing moments. A student can fill his backpack as he wishes, choosing from a variety of badges. The Edubadges act as motivation for students to work on developing their knowledge and also challenge the student to assess what they produce, but especially to allow them to explore what else they want to learn. In addition, Edubadges offer the opportunity for students to demonstrate their skills and knowledge outside the University of Applied Sciences. In workshops, badges also offer the opportunity to grant students certain rights and/or access based on their knowledge or skill. (For example, a student who possesses a badge Lasercutting Advanced Beginner can and may independently use the Laser Cutter.

The grades levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. We have based ourselves in this on the **Dreyfus' model of skill acquisition** (Dreyfus, 2004).

- The grade level *novice* focusses on the acquisition of knowledge and/or skills.
- The grade level *advanced beginner* is aimed at the independent use of the knowledge and/or skills.
- The grade level *competent* is aimed at solving problems or new situations that occur while applying the knowledge and/or skills.
- The grade level *proficient* focusses on recognising the bigger picture and possible alternatives of applying and enriching the knowledge and/or skills.
- The grade level *expert* is the highest attainable grade level in which the knowledge and skills have become a part of both practical and theoretical action. Experience has been gained in using and applying the knowledge and skills and both can be applied and enriched in innovative ways.

The Dreyfus model broadly translates as follows:

Novice: Making sense of	Understands the possibilities of X, but is not able to execute X independently or solve (unexpected) problems.
Advanced beginner: Cookbook world	Is capable of using the knowledge and/or skills independently. Is capable of making decisions in standard situations but is not able to solve (unexpected) problems.
Competent: Solutions world	Is capable of implementing and applying the knowledge and/or skills independently and in various ways. Is capable of solving (new) problems.
Proficient: Design patterns world	Is able to hack the knowledge and/or skills and is able to use them for different purposes and contexts. Is capable of viewing the knowledge and/or skills as part of a larger whole and knows many alternatives.
Expert: Intuitive solutions world	Is capable of using the knowledge and/or skills intuitively and recognises situations based on experience. Is capable of approaching and applying the knowledge and/or skills in innovative ways.

Where X = :

- Desk Research / Information Literacy
- Other, indicated on the Edubadge

To be able to achieve the Edubadges at the desired level, time is not always a good indicator to determine the value of the badge. The time it takes to acquire an Edubadge is, to a large extent, dependent on prior knowledge and experience. However, most K&I skills badges require an average time of: Novice 2 hours, Advanced Beginner 4 hours, Competent 16 hours. These hours include teaching/coaching hours and self-study hours.

To be able to test the criteria, we use a *single point rubric*, which allows us to distinguish between the knowledge and/or skills that are still missing and the knowledge and/or skills that the student exceeds.

National taxonomy Information Literacy (SHB)

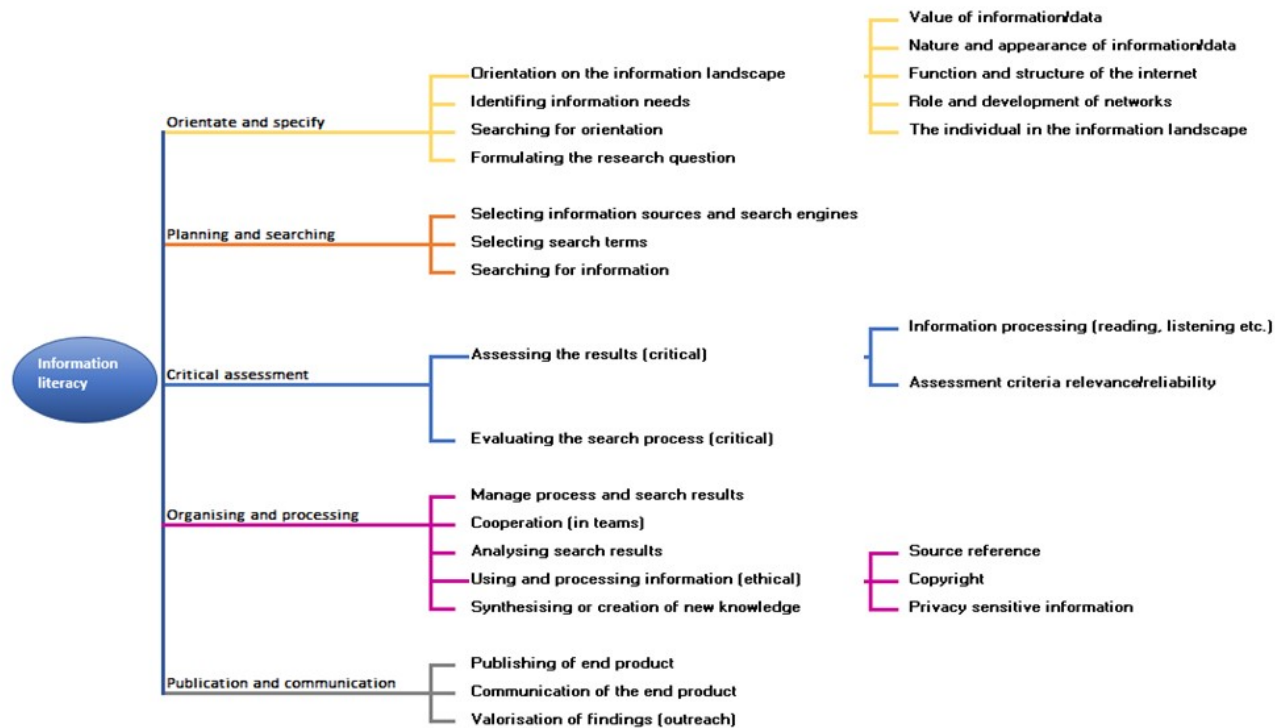


Figure 1: Infographic SHB regarding information literacy ("Taxonomie Informatievaardigheid - vergelijking modellen v8 - SHB," 2021)

Relation to the Dreyfus model

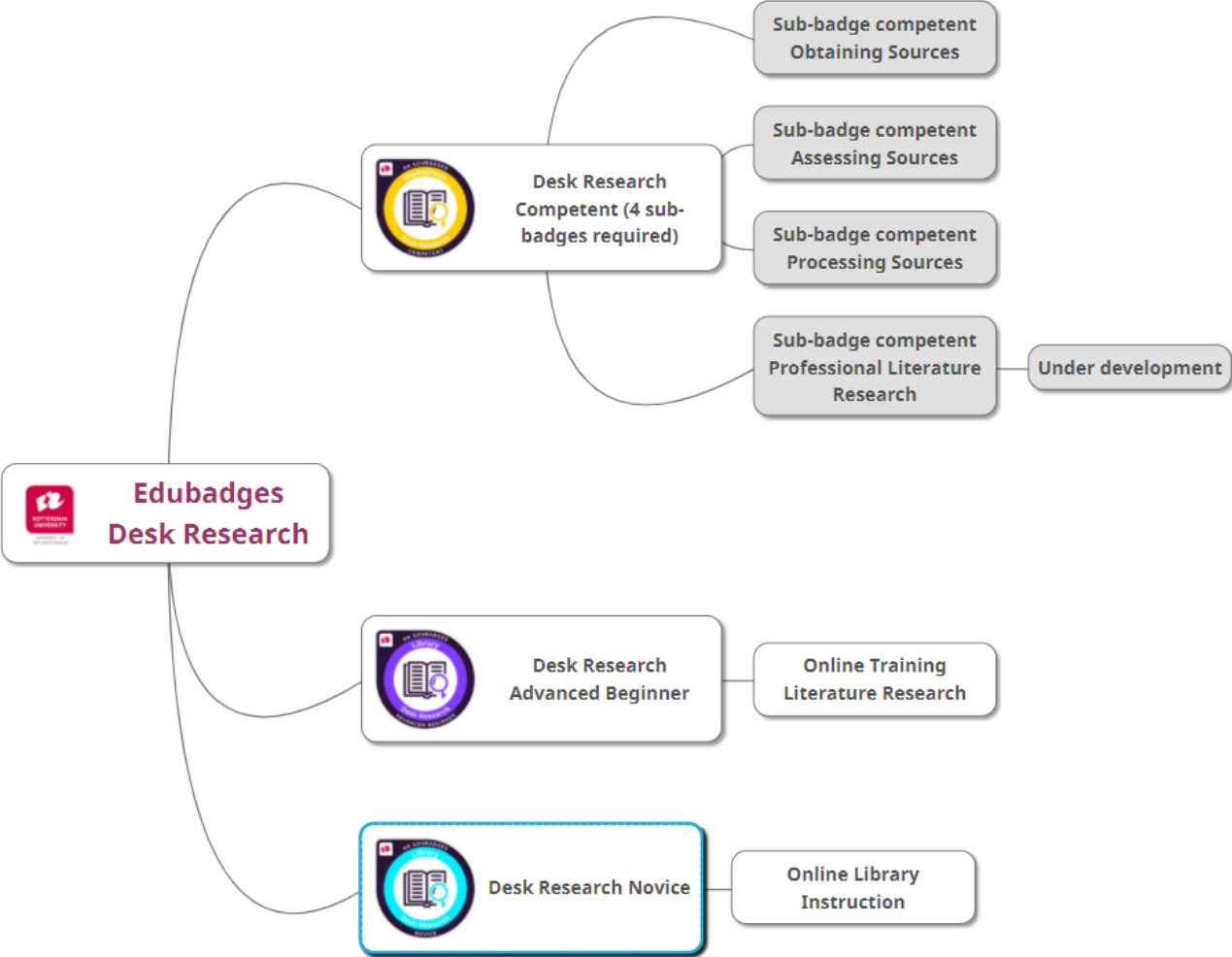
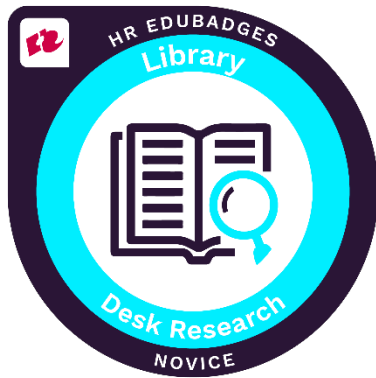


Figure 2: Infographic HR regarding Edubadges Desk Research

Library | Desk Research Novice



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level Novice is an introduction to Desk Research.

You can obtain this badge by following an (online) training Library instruction by K&I. Following this, you will take an (online) test. In order to obtain this badge you must complete this test successfully.

Learning outcomes:

You understand the possibilities of the (online) library and are capable of finding sources for Desk Research.

Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: The student understands the added value of the (online) library for Desk Research.	
	Standard of work: The student is capable of searching for information sources in the (online) library with the information provided (shown during workshops, instruction video's and manuals).	
	Autonomy: The student is capable of using the (online) library, aided by a manual or personal assistance.	
	Problem solving: -	
	Perception of context: -	

Example of questions for testing: Describe three ways to get literature via the library.

Library | Desk Research Advanced Beginner



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level Advanced Beginner focusses on the development of independency in doing Desk Research.

You can obtain this badge by following an (online) training Literature Research by K&I. Following this, you will take an (online) test. In order to obtain this badge you must complete this test successfully.

Learning outcomes:

You are capable of finding, assessing and referencing sources independently.

Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: The student knows the most important aspects of doing Desk Research and takes the 5 steps of literature research into account.	
	Standard of work: The student is capable of answering closed questions concerning one of the 5 steps of doing Desk Research.	
	Autonomy: The student capable of doing desk Research independently with the aid of clear directions for a specific assignment.	
	Problem solving: -	
	Perception of context: -	

Example of questions for testing: Name the differences between a search engine and a database. Name the 5 criteria for assessing the reliability and relevance of a source. Name de differences between citing and paraphrasing.

Library | Desk Research Competent



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level *Competent* focusses on researching the different options and the ability to solve problems that occur.

You can obtain this badge after having obtained all associated sub-badges Desk Research Competent:

- Competent : Obtaining sources
- Competent : Assessing sources
- Competent : Processing and referencing sources
- Competent : Professional literature research

Learning outcomes:

You are capable of carrying out professional literature research and write an essay, argument, thesis or other assignment in an informative manner.

Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: Based on personal insight the student is capable of achieving the desired results in various assignments.	
	Standard of work: The student is capable of applying Desk Research in various ways.	
	Autonomy: The student is capable of independently carrying out Desk Research regardless of the assignment.	
	Problem solving: The student is capable of solving problems that occur while doing Desk Research.	
	Perception of context: The student is capable of describing various applications for his/her area of expertise.	

Example of questions for testing: Describe the steps you have taken to achieve your results.

Library | Desk Research Competent : sub-badge Obtaining sources



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level *Competent* focusses on researching the different options and the ability to solve problems that occur.

You can obtain this badge by handing in an essay, argument, thesis or other written assignment that will be assessed by your teacher/supervisor.

Learning outcomes:

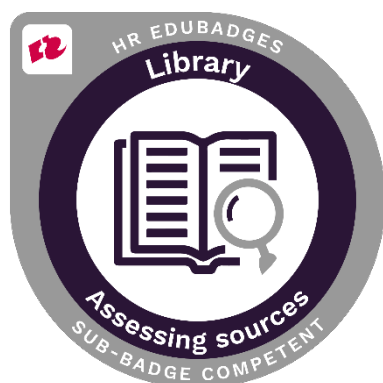
You are capable of finding sources independently while doing your literature research: orientation, selecting sources, search methods.

Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: Based on personal insight the student is capable of obtaining the desired sources for various assignments.	
	Standard of work: The student is capable of obtaining the sources in different ways.	
	Autonomy: The student is capable of obtaining sources regardless of the assignment.	
	Problem solving: The student is capable of solving problems that occur whilst gathering sources.	
	Perception of context: The student is capable of describing various applications for obtaining sources for his/her area of expertise.	

Example of questions for testing: Describe the steps you have taken to get your results.

Library | Desk Research Competent : sub-badge Assessing sources



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level *Competent* focusses on researching the different options and the ability to solve problems that occur.

You can obtain this badge by handing in an essay, argument, thesis or other written assignment that will be assessed by your teacher/supervisor.

Learning outcomes:

You are capable of assessing the reliability and relevance of sources independently while doing your literature research

Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: Based on personal insight the student is capable of assessing the reliability and relevance of the desired sources for various assignments.	
	Standard of work: The student is capable of assessing the reliability and relevance of sources in various ways.	
	Autonomy: The student is capable of assessing the reliability and relevance of sources, regardless of the assignment.	
	Problem solving: The student is capable of solving problems that occur during the assessment of the reliability and relevance of the sources.	
	Perception of context: The student is capable of describing various applications for assessing the reliability and relevance of sources for his/her area of expertise.	

Example of questions for testing: Describe the steps you have taken to get to your results.

Library | Desk Research Competent : sub-badge

Processing sources



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level *Competent* focusses on researching the different options and the ability to solve problems that occur.

You can obtain this badge by handing in an essay, argument, thesis or other written assignment that will be assessed by your teacher/supervisor.

Learning outcomes:

You are capable of processing and reference sources independently while doing your literature research

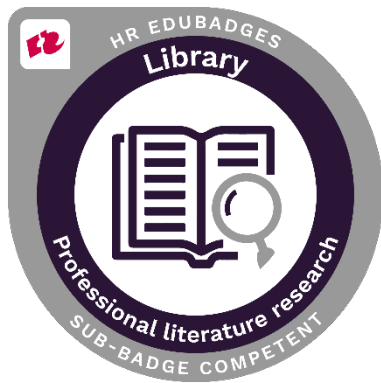
Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: Based on personal insight the student is capable of processing and referencing the desired sources in various assignments.	
	Standard of work: The student is capable of processing and referencing sources in various ways.	
	Autonomy: The student is capable of independently processing and referencing e sources, regardless of the assignment.	
	Problem solving: The student is capable of solving problems that occur during the processing and referencing of sources.	
	Perception of context: The student is capable of describing various applications for processing and referencing sources for his/her area of expertise.	

Example of questions for testing: Describe the steps you have taken to get to your results.

Library | Desk Research Competent : sub-badge

Professional literature research



Issuer: Knowledge & Information

Description:

The grade levels of the Edubadges are based on the degree of independency and the level of complexity of a skill. The grade level *Competent* focusses on researching the different options and the ability to solve problems that occur.

[In development]

Learning outcomes:

[In development]

Single Point Rubric:

Points of attention <i>Aspects that still need some work</i>	Criteria <i>Success criteria</i>	Advanced <i>Parts that exceed the standards</i>
	Knowledge: [in development]	
	Standard of work: [in development]	
	Autonomy: [in development]	
	Problem solving: -	
	Perception of context:	

Example of questions for testing: [in development]

Glossary

Backpack

The knowledge and skills acquired by a student or employee are visible in the Edubadges backpack, where all Edubadges are collected. An Edubadge can be shared and verified by employers or institutions.

Badge criteria

Criteria the student must meet in order to receive the Edubadge.

Assessor

The designated expert in the subject area who will assess whether a badge applicant meets the required knowledge and skills at the level described for the Edubadge. Note that this must also be the Issuer for awarding the Edubadge in the Edubadges environment.

Desk Research

Using existing data in the form of, for example, general literature, previous studies, or databases (Fischer & Julsing, 2019).

Edubadge

A digital certificate issued by a Dutch educational or research institution to a specific person (student or employee) to confirm that certain knowledge or skills have been demonstrably acquired. SURF's Edu badges platform issues edubadges for both accredited education and extra-curricular activities.

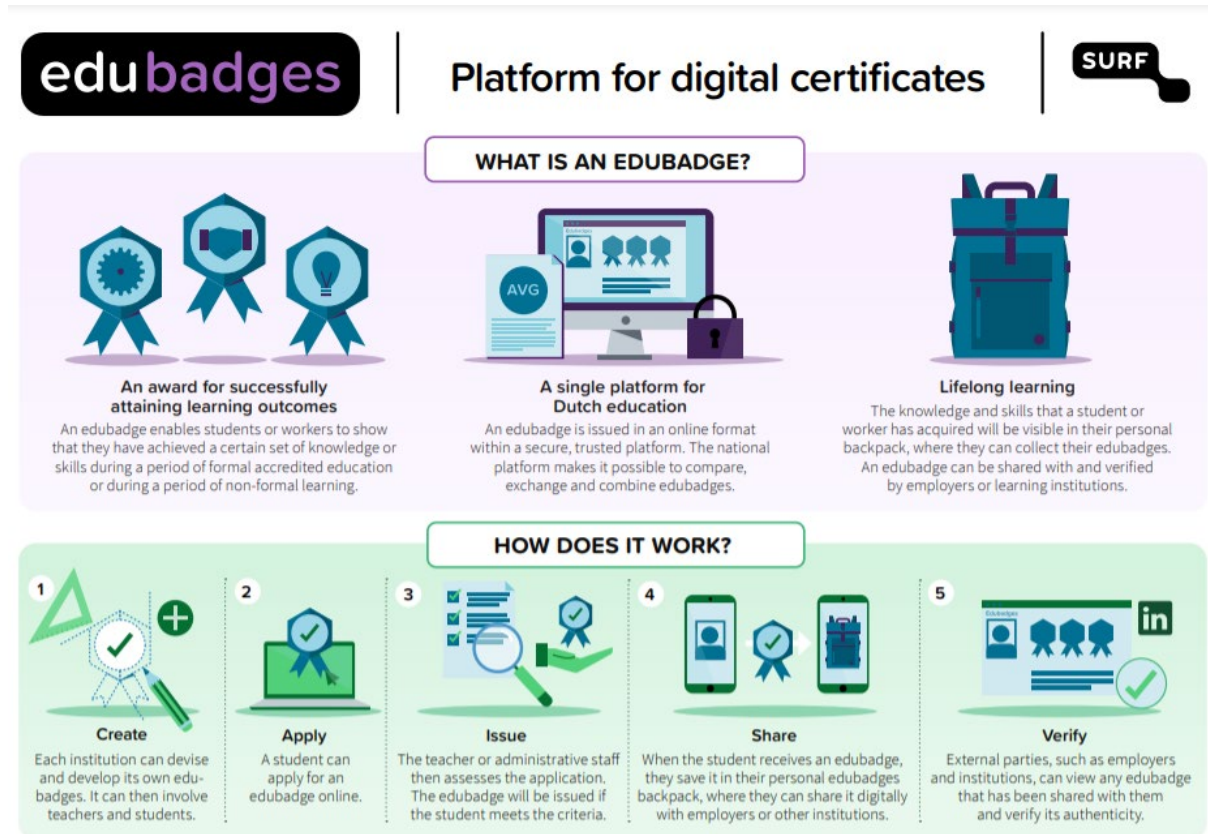


Figure 3: Infographic SURF regarding Edubadges ("issuing digital certificates to students " 2021)

Information literacy

The skills needed when searching, finding, assessing, and processing information.

Issuer

The organisational unit of the institution that issues the Edubadge. The issuer appears in the meta data for an issued badge as the assessor who assessed the level of knowledge and skills.

Issuer group

This can be a subdivision or subcategory and contains a clustering of different issuers. In the Edubadges platform, issuer groups are clustered under the issuer.

Learning outcomes

A learning outcome is a description of what a learner knows, understands, and is capable of after completing a learning process.

Literature research

Phase at the beginning of a research study in which theoretical embedding of the research questions is sought. Relevant theories and models are used to outline the topic, form hypotheses, and design the research plan (Fischer & Julsing, 2019).

Observer

A competent person in the field who observes the learning process of the applicant for an Edubadge. This observer observes the steps that have been completed and supports the applicant in the process towards the application. An observer must have mastered at least one level higher than the level that is applied for.

Single Point Rubric

In a single point rubric, a satisfactory performance on each criterion is the starting point. It describes only the level of satisfactory performance for each criterion or learning objective. The left column describes what items are still missing or where there is room for improvement. The right column can describe which standards the student exceeds or in which the student is already at the next level.

Skills

A skill is the ability to perform an action competently. A skill in a field is usually acquired through experience, by practicing regularly for a short or longer period of time. Usually it is also about applying acquired knowledge and learned (low level) actions. Skills can be acquired on a practical, personal or academic level.

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