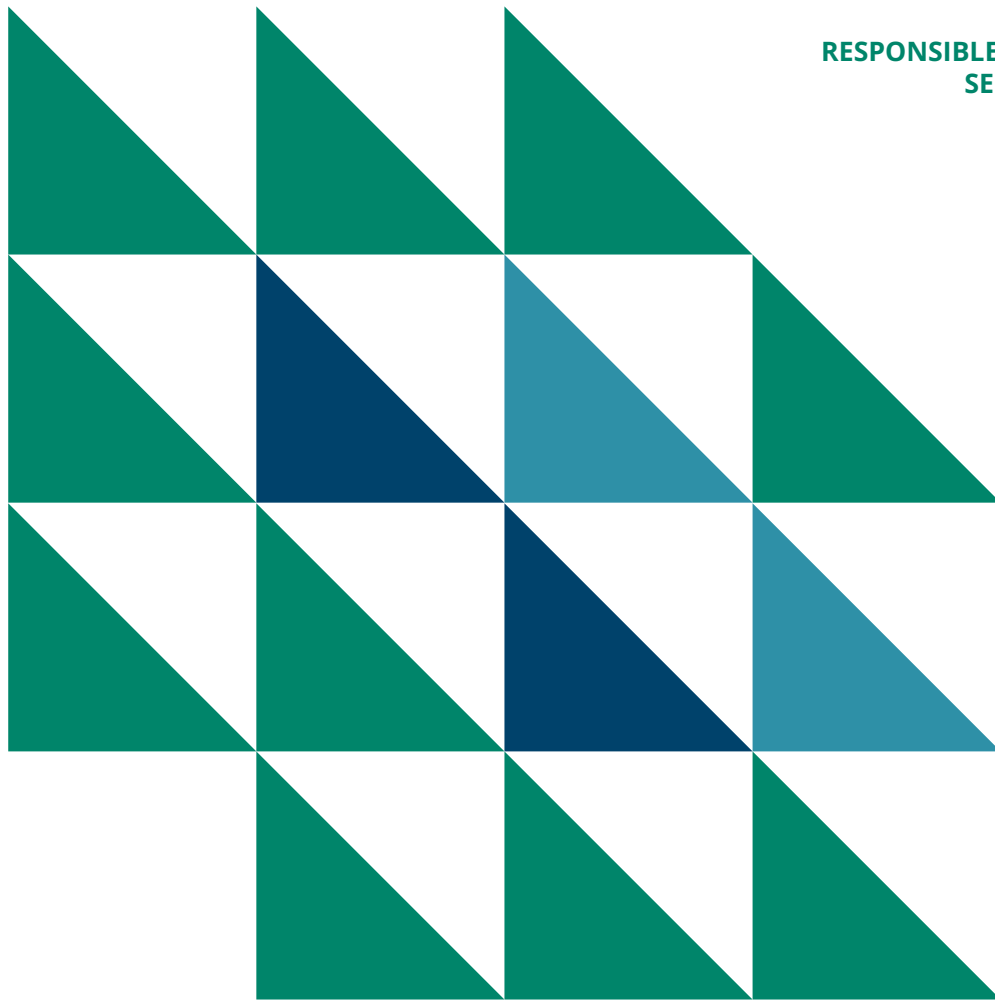# RECOMMENDATIONS FOR OPEN EDUCATION 2021

RESPONSIBLE RESEARCH SERIES

Responsible Research Series publishes declarations, policies, studies, recommendations and other documents relating to the openness, responsibility and accessibility of science and research. Publications also cover science communication and science-society interactions. The publication series is not a scientific peer-reviewed publication. The series is published by the Committee for Public Information (TJNK) and the Federation of Finnish Learned Societies (TSV).

CONTENTS

FOREWORD

TO SPECIFY THE DETAILS of the National policy on open education and educational resources[1], the introduction to the policy introduced plans for national recommendations, which would help organisations implement the policy measures. They would also provide teachers and other persons involved in organising education with good tips for promoting open education and the use and preparation of open educational resources. The first one of the recommendations, the recommendation concerning contractual issues, copyrights, licensing and data protection issues, was published as an annex to the first policy component.

This publication brings together four recommendations for open education or parts thereof published in 2021. Although each recommendation is an independent work, they contain many references to each other. The recommendations will be updated in connection with the update of the National policy on open education and educational resources.

The first one of the recommendations, Quality criteria for open education. Part 1.The quality criteria for open educational resources specifies the first principle of the national policy according to which, when evaluating education and open educational resources developed with it, they are assessed not only for their openness, but also the reliability of their content and other quality dimensions. The second part of the recommendation, concerning quality criteria for open educational practices, will be drawn up later.

The second recommendation, Guidelines on accessibility of open educational resources, specifies the third principle of the national policy, according to which, the development of open education and open educational resources takes into account their accessibility and applicability to a diversity of learners. The second part of the recommendation, concerning accessibility of open learning environments, will be drawn up later.

The third recommendation, The recommendation on gaining merit in open education and open educational resources, specifies the fourth principle of the national policy, according to which work for developing open education and educational resources is evaluated in the merit criteria and in the planning of duties.

The fourth recommendation, Competence requirements for open education, promotes the achievement of the first objective of the first policy component, according to which, by 2025, open educational resources are used and created extensively in universities. In the first policy component, the recommendation was limited to the competence requirements applied to open educational resources. However, in practice, it was found easier to draw up competence requirements applicable to the open education in general at the same time.

In addition to the recommendations already mentioned, there are plans for drawing up a recommendation on practices and tools for ensuring the findability, interoperability, reusability and further development of open educational resources, and a recommendation on open education and open educational resources that take into account the diversity of learners and the responsibility of content.

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1   Open education and educational resources. National policy and executive plan by the higher education and research community. Policy component 1 – Open access to educational resources Responsible Research series 16:2020. https://doi.org/10.23847/isbn.9789525995404.

QUALITY CRITERIA FOR OPEN EDUCATION. PART 1. QUALITY CRITERIA FOR OPEN EDUCATIONAL RESOURCES

THESE GUIDELINES SUPPORT the examination of the quality of open educational resources from the perspective of openness. The quality criteria presented in the form of a checklist are intended as assistance to authors and users of open educational resources and the organisations behind them. The quality criteria will:

- help authors create resources of a higher quality from the perspective of openness;

- help users in quality assessment as they are reviewing open educational resources;

- give the background organisations a tool they can use for facilitating the preparation and evaluation of open educational resources as part of other guidelines and instructions provided by the organisation.

The guidelines support the first principle of the national policy on open education and open educational resources, according to which, the education and open educational resources developed with it should be assessed not only for their openness, but also for quality.

The guidelines define five different quality criteria for open educational resources and more detailed quality dimensions for each of them. The criteria are:

- **Content.** The content of high-quality open educational resources is reliable.

- **Learning and teaching methods.** High-quality open educational resources enable the use of diverse ways to learn and teach.

- **Usability and accessibility.** High-quality open educational resources are as easy to use as possible for everyone and in any situation.

- **Findability and sharing.** High-quality open educational resources are easy to find, and the users know under which terms and conditions they can share them.

- **Lifecycle and adaptability.** High-quality open educational resources are maintained and updated on a regular basis. In addition, other open resources and co-development practices are used in the production of the materials.

Under each criterion, the quality dimensions have been arranged according to different levels – a check in the box indicates that the element applies to open educational resources of this level. The first-level quality dimensions describe basic characteristics that all open educational resources should have. The second-level quality dimensions describe more advanced open educational resources in

terms of quality and the third-level quality dimensions apply to highly advanced open educational resources.

The guidelines are based on the international TIPS Quality Assurance Framework for open educational resources.[2] The guidelines focus on quality dimensions of particular importance for openness. General instructions on the quality of online implementations and related materials can be found, for example, in eAMK Quality criteria for online implementations.[3]

When preparing and using open educational resources, it is a good idea to get acquainted with the Guidelines on the accessibility of open educational resources and The recommendation on copyright issues to be taken into consideration in the open publication of educational resources annexed to the National policy on open education and educational resources.[4] It should also be noted that open educational resources should only prepared and used in accordance with the Responsible conduct of research guidelines[5] of the Finnish National Board on Research Integrity TENK. For how to observe open educational resources in gaining merit, see Recommendation on gaining merit in open education and open educational resources.

Table on quality criteria for open educational resources.

Content	Educational resources are based on research-based knowledge and meet the sector-specific quality criteria.	X	X	X
	Copyrights have been taken into account when preparing the educational resources.	X	X	X
	The sources used have been mentioned in the educational resources.	X	X	X
	The educational resources provide tips and links to supplementing material.		X	X
	For the most part, the sources of the educational resources are openly available.			X
	The educational resources have been peer-reviewed.			X

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2   https://www.cemca.org/ckfinder/userfiles/files/OERQ_TIPS_978-81-88770-07-6.pdf.
3   https://www.eamk.fi/fi/campusonline/laatukriteerit/.
4   https://doi.org/10.23847/isbn.9789525995381.
5   https://tenk.fi/fi/ohjeet-ja-aineistot/HTK-ohje-2012.

Quality criterion	Quality dimensions	Basic level	Advanced level	Highly advanced level
Learning and teaching methods	The educational resources describe their learning objectives.	X	X	X
	The educational resources and their components can be used in a variety of teaching situations and educational resources.	X	X	X
	The educational resources suggest what kind of methods can be used for assessing learning.		X	X
	The educational resources are suited for a diversity of learners and different learning situations.		X	X
	The educational resources contain participatory content.		X	X

Quality criterion	Quality dimensions	Basic level	Advanced level	Highly advanced level
Usability and accessibility	The educational resources are accessible (see Guidelines on the accessibility of open educational resources).	X	X	X
	The educational resources contain necessary instructions for using them.	X	X	X
	The educational resources have been adapted to meet the needs of the target group.	X	X	X
	The educational resources are printable and available offline.		X	X
	The educational resources can be adapted to different use situations.		X	X
	The educational resources are suited for mobile use.			X
	The technical limitations of the educational resources have been specified.			X

Quality criterion	Quality dimensions	Basic level	Advanced level	Highly advanced level
Findability and sharing	The educational resources have been published on an open platform that enables findability of the educational resources.	X	X	X
	The educational resources describe how they can be linked to existing study modules or curricula.	X	X	X
	The educational resources and their metadata bear the marking of an open access licence.	X	X	X
	The educational resources are described as comprehensively as possible in the national Library of Open Educational Resources.		X	X
	The educational resources describe for what kind of use situations they were originally prepared.		X	X
	Open file formats have been favoured in the sharing of the educational resources, enabling their further use.			X
	The educational resources contain information on potential affiliations and author identifiers.			X
	Open-source software was used for preparing the educational resources.			X

Quality criterion	Quality dimensions	Basic level	Advanced level	Highly advanced level
Lifecycle and adaptability	The authors of the contents used in the educational resources are clearly indicated and separated from each other.	X	X	X
	The educational resources indicate the update cycle or a time when the content is no longer up to date or should be checked.		X	X
	Open materials were used when preparing the educational resources.		X	X
	The educational resources describe how to give feedback on them and suggest improvements to them.		X	X
	The use of educational resources and feedback received are monitored.			X
	The files needed for editing the educational resources have been shared alongside the resources (e.g., caption files of videos for translation purposes).			X

GUIDELINES ON THE ACCESSIBILITY OF OPEN EDUCATIONAL RESOURCES

THESE GUIDELINES SUPPORT the third principle of the National policy on open education and educational resources[6], according to which accessibility is to be taken into account when developing open education and open educational resources. The purpose of the guidelines is to highlight good practices that help in the application of the principle.

WHAT DOES ACCESSIBILITY MEAN?

Accessibility means that as many people as possible can use online services as easily as possible. It also means that accessibility has been taken into account in the planning and implementation of the services.

Accessible open educational resources support the equality and inclusion of learners. The contents of accessible open educational resources are understandable, and the materials are technically easy to use both on the website and on mobile applications. Technical usability also covers the readability of resources with the help of assistive technologies. Physical accessibility has been taken into account by ensuring the accessibility of facilities and environment.

Accessible content is useful for a large number of people. Accessibility benefits especially those with a diagnosed disability or functional defect. In the Finnish Student Health Survey, many respondents mentioned difficulties with reading, writing and concentration that can be facilitated with accessible educational resources (Finnish Student Health Survey 2016).[7]

People with temporary limitations, such as an illness, injury or disruptive environmental factors, benefit from the provision of educational contents in various formats, such as videos with captions. The educational resources need to be accessible to accommodate learners with limited language proficiency or poor IT skills.

Areas of accessibility

Accessibility can be examined from the perspective of technical implementation, ease of use, and clarity and comprehensibility of content. When an online service is **technically well implemented**, i.e., compliant with the HTML standard and WCAG guidelines, it uses error-free and logical source code. Technically well implemented service operates on a wide range of terminals and with various assistive technologies, such as voice control or screen readers.

Ease of use means:

- the online service has a clear user interface
- the system entity is easy to conceive
- navigation is clear
- the page, function or content one is looking for is easy to find.

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6   https://doi.org/10.23847/isbn.9789525995404.
7   https://1285112865.rsc.cdn77.org/app/uploads/2020/01/KOTT_2016-1.pdf.

Therefore, in practice, the main content of the educational resources must be easy to distinguish from other elements. Attention should also be paid to how the users navigate in digital learning environments and how the resources are named, so that it is easy for everyone to study using them. It must also be possible to use them independently.

The comprehensibility of content is an essential part of an accessible online service and it enables learning. Comprehensibility derives from clear language and logically proceeding entities. Different learners have different ways by which they perceive and understand information presented to them, so providing content in ways that can be observed through various senses promotes individual learning. The provision of resources in alternative ways is particularly useful for students with sensory impairments or learning difficulties or with a mother tongue other than Finnish.

Accessibility regulations

The Act on the Provision of Digital Services (306/2019)[8] defines the minimum requirement level for accessibility (AA) of online services based on the Web Content Accessibility Guidelines (WCAG) 2.1 standards. The act is based on the European Union Directive (2016/2102) on the accessibility of the websites and mobile applications of public sector bodies that entered into force on 22 December 2016. According to the directive, all digital services and 'published content' should be accessible. In Finland, the supervisory authority for compliance with the law is the Regional State Administrative Agency for Southern Finland. The Act applies to organisations operating in the role of a public authority (e.g., universities, universities of applied sciences, local authorities). In addition to public authorities, accessibility requirements apply to bodies governed by public law; organisations and services whose activities are supported by public funds; and some private sector service providers (banks, insurance companies).

The online services and content published online by public authorities and governed by public law must meet the accessibility requirements. The requirements apply to all content published online, including text, images, videos and different kinds of files. The law applies retroactively to files shared or presented online only in part: videos and audio files published earlier than 23 September 2020 and document files published earlier than 23 September 2018 are not covered by the law.

The Act does not need to be applied to education provided under the Universities Act or the Universities of Applied Sciences Act when a website or mobile application is created in connection with teaching and its use takes place in a closed group for a fixed period of time. Furthermore, the accessibility requirements of the Act do not apply to live video broadcasts.

Every organisation subject to the legal accessibility requirements under the Act shall make an accessibility statement on their websites and mobile applications and publish it on their website. The statement[9] should specify any deviations from accessibility requirements (e.g., accessibility gaps on websites or in Microsoft Office documents) and inform about the possibility to give feedback on accessibility.

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8   https://www.finlex.fi/fi/laki/alkup/2019/20190306.
9   https://www.saavutettavuusvaatimukset.fi/digipalvelulain-vaatimukset/tietoa-saavutettavuusselosteesta/.

AT BEST, HOW ACCESSIBLE OPEN EDUCATIONAL RESOURCES AND LEARNING ENVIRONMENTS ARE FROM THE LEARNER'S PERSPECTIVE?

Accessibility is for everyone as it makes it easier and smoother for everyone to use educational resources and learning environments. People almost inevitably encounter situations in which they benefit from the various elements of accessibility – for example, sufficient contrast used in the educational resources helps if the user tries to read the material in bright sunlight.

At best, open educational resources and learning environments reflect the application of the Design for All principle. In accordance with this principle, as a rule, the educational resources and learning environments try to accommodate diverse groups of learners and use situations, which contributes to the equality and social inclusion of learners.[10]

From the perspective of those using accessible open educational resources or learning environments, the Design for All principle is helpful in the following ways:

1) **Everyone has equal opportunities and access to the educational resources and learning environments.** Equal opportunities and access are ensured when preparing educational resources and learning environments. Equal opportunities and access include taking into account different hardware environments and network connections, and the varying language proficiency of learners. When properly realised, equal opportunities and access also prevent the stigmatisation of learners or groups of learners.

2) **The educational resources and learning environments can be used flexibly.** It is possible for learners to adapt the educational resources or learning environment to their specific needs and devices and software available to them with various individual settings and features. At best, the same resources may even contain alternative sections suited for different ways of learning, for example.

3) **The educational resources and learning environments are easy to use.** The educational resources or learning environments are not too complex, but learners know how to use them regardless of their previous experience, skills, linguistic competence, level of concentration or devices and software available to them.

4) **The possibilities of using or understanding the educational resources and the learning environment in a wrong way have been prevented.** When learners do not need to spend time reading error messages, they can focus on the content of the educational resources or learning environment. Accessible educational resources prevent potential misunderstandings, which means that the learners can be sure that they have internalised the content of the material in the right way.

5) **The educational resources and learning environment encourage people to learn more.** Accessible educational resources and learning environments generate good learning experiences and do not discourage the learner.

10 http://designforall.org/.

6) **Openness disseminates good accessibility practices.** If the educational resources or learning environments are open, the good examples provided by them can be used as models for developing them further. In this way, good accessibility practices applied to educational resources and learning environments spread rapidly to wider circles, which also helps learners.

What to do if learners notice shortcomings in the accessibility of educational resources?

The user experience alone may be indicative of insufficient accessibility of educational resources. For example, learners may notice that the educational resources cannot be used without a mouse or that a video shared by the teacher lacks captions. In some cases, learners can also evaluate the accessibility of educational resources using the same tools as the authors of the material, for example, when checking the colour contrast.

First, learners should give feedback on shortcomings in the accessibility of open educational resources to the author of the material or the teacher who used it in their teaching. If the author or teacher works in a higher education institution or other organisation subject to accessibility requirements, they are obligated to respond to the feedback and provide the educational resources in a format suitable for the user. Even if the accessibility requirements do not apply directly to the author, feedback gives them the opportunity to improve their educational resources.

If the author of the educational resources or the teacher who used them does not respond to the feedback or does not offer replacing educational resources, even if they should under the law, learners should contact the organisation behind the author or teacher. The background organisation should have either an online form or an email address for accessibility feedback, and the response to the feedback should come within two weeks. If the response to the feedback is not satisfactory or there is no answer at all, learners may contact the Regional State Administrative Agency for Southern Finland and submit a request for information or a complaint concerning shortcomings in accessibility.[11]

HOW DO YOU TAKE ACCESSIBILITY INTO ACCOUNT AS AN AUTHOR?

Accessibility should be taken into account already when planning educational resources, and it should be worked on when preparing the educational resources. When sharing your educational resources openly, you allow others to improve the accessibility of the materials.

Authors who take account of good accessibility of educational resources:

1. Familiarise themselves with accessibility guidelines

2. Use the accessibility features of the tools and environments they use

3. Describe the accessibility of the educational resources and their potential limitations

4. Listen to feedback and develop material based on the feedback

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11 More information on the user's rights: https://www.saavutettavuusvaatimukset.fi/kayttajan-oikeudet/.

You can take accessibility into account in your educational resources in the following ways:

Issue	Examples on how to take into account	Further information	Tools
Clarity and comprehensibility of language	• Use a clear general language that is easy for all learners to understand. • Explain the unfamiliar terms used.	• Institute for the Languages of Finland[12] • Accessible online text[13]	
Use tools for creating a clear and logical structure	• Divide the material into sections with descriptive titles to inform the learner about the structure of the educational resource. • Take advantage of the built-in styles of the software. • Name the links illustratively.	• Instructions of the Saavutettavasti.fi website to accessible documentation[14] • eOppiva course: Accessible documents online[15]	Use the software's own styles tools for preparing the documents and for checking their accessibility
Visibility and alternative presentation methods of non-textual elements	• Take text and colour contrasts into account to ensure that the different contents are as easy as possible to distinguish in the material. • Make sure that the material also functions in black and white. • Produce equivalent content for non-textual material: for example, type alternative texts or captions for images, and add captions, subtitles, media alternative transcripts or audio descriptions to video and audio recordings.	• Image and sound[16] • About captioning videos[17] • Plain language videos[18] • The guideline Captioning of videos promotes accessibility shows the differences between different modes of captioning (open or closed captions)[19]	• Accessibility extensions to web browsers, such as the NoCoffe extensions to Chrome • Contrast checkers[20] • It is easy to make an accessibility check on videos (www.saavutettavasti.fi)
Findability of resources and their contents	In the metadata of educational resources, describe what the resources are about, who they are intended for and how accessibility has been taken into account in them.	• Glossary for accessibility metadata[21] • Instructions for adding metadata[22]	Library of Open Educational Resources
The usability of resources with different devices and in various environments	Use file formats and solutions that allow the user to customize the appearance according to their own needs.	Comparison of Epub and PDF formats[23]	
Make use of accessible materials	When you use resources produced by others in teaching, check their accessibility, e.g., captioning.		You can find accessible educational resources, for example, in Library of Open Educational Resources (aoe.fi)

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12 https://www.kotus.fi/.
13 https://kaltura.hamk.fi/media/N%C3%A4in+kirjoitat+saavutettavaa+verkkoteksti%C3%A4/0_b20hi76r.
14 https://www.saavutettavasti.fi/saavutettavat-asiakirjat/.
15 https://www.eoppiva.fi/koulutukset/saavutettavat-asiakirjat-verkossa/.
16 https://www.saavutettavasti.fi/kuva-ja-aani/.
17 https://support.google.com/youtube/answer/2734796?hl=fi.
18 https://selkokeskus.fi/selkokieli/videot/.
19 https://digipedaohjeet.hamk.fi/ohje/nain-tuotat-saavutettavan-videon/.
20 https://webaim.org/resources/contrastchecker/.
21 https://wiki.eduuni.fi/display/CscOppimateriaalivaranto/
    Oppimateriaalien+metatietomalli#Oppimateriaalienmetatietomalli-saavutettavuus.
22 https://aoe.fi/#/materiaali/606.
23 https://daisy.org/info-help/time-to-use-the-modern-digital-publishing-format/.

HOW DOES THE ORGANISATION ENSURE AND SUPPORT ACCESSIBILITY?

Legislation sets a minimum level of accessibility for online services. In Finland, the supervisory authority for compliance with the law is the Regional State Administrative Agency for Southern Finland, and the Agency's saavutettavuusvaatimukset.fi website gives support to operators on accessibility issues.

The organisation assesses which educational resources the accessibility requirements apply to and what the requirements mean for each organisation's activities. According to current legislation, accessibility requirements do not need to be applied when the educational resources are used in a closed group on a fixed-term or experimental basis.

However, organisations should already start examining the European Accessibility Act adopted in 2019.[24] The directive extends the requirements to new products and services, such as e-books and devices and software used for reading them. The aim is to have the directive transposed into national law by 28 June 2022 and to have it enter into force in June 2025.

Accessibility can be seen as part of user-oriented development of services to support learning and participation. Accessibility supports high-quality production and utilisation of educational resources in organisations.

The legal obligations and the instructions drawn up from the perspective of the user and the author are taken into account in the organisation's operations.

Measures by the organisation:

- The organisation determines how accessibility is realised in its operations
- The organisation assigns responsibilities for measures related to accessibility and arranges the necessary resources for these measures
- The organisation supports and instructs in the implementation of statutory obligations and provides adequate legal advice
- The organisation supports the continuous development of educational resources
- The organisation uses and shares good practices in the implementation of accessibility
- The organisation invests in strengthening its personnel's accessibility competence
- The organisation receives accessibility feedback and responds to feedback within 14 days

In addition to meeting its statutory obligations, an organisation that supports good accessibility has:

1. defined accessibility targets and their continuous monitoring
2. guidelines for drawing up accessible educational resources and assessing the accessibility of educational resources (see previous sections in the recommendation on the user and author's perspectives)

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24 https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019L0882&from=EN

3. orientation on the implementation of accessibility for all personnel and especially for specialists in learning and education support

4. support for authors of educational resources in the preparation and use of educational resources

5. support for the users of educational resources

6. accessibility documentation (accessibility statement, accessibility feedback) and agreed processing practices for them

Sources and additional information

- Further information on the Regional State Administrative Agency website[25]
- Draw up an accessibility statement[26] (in Finnish)
- Accessibility guidelines of the Association of Finnish Local and Regional Authorities[27] (in Finnish)

More general information on the implementation of accessibility in different forms of educational resources:

- Universal Design for Learning[28]
- The Association of Finnish eLearning Centre webinar on online materials[29] (in Finnish)
- Other material in English on the accessibility of educational resources[30]

Examples of good practices and common guidelines:

- Accessibility criteria for higher education institution's – a tool for assessing the accessibility of the higher education institution, especially the sections on "Digital accessibility" and "Teaching and learning"[31] (in Finnish)
- Accessibility of video and audio material in Moniviestin – Digital services (jyu.fi)[32] (in Finnish);
- Celia. (2021). Instructions and tips for accessing online content: Accessibility documentation – PowerPoint[33] (in Finnish)
- Accessible documents online (2021). Accessibility of PowerPoint slideshows[34] (in Finnish)

You can check the accessibility of PDF files using a variety of tools:

- Check by using Adobe Acrobat Pro: Check accessibility of PDFs (Acrobat Pro)[35]
- Online checking tool PAVE: PDF Accessibility[36].

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25 https://www.saavutettavuusvaatimukset.fi/.
26 https://www.saavutettavuusvaatimukset.fi/saavutettavuusseloste/.
27 https://www.kuntaliitto.fi/tilastot-ja-julkaisut/verkko-oppaat/saavutettavuusopas.
28 https://www.cast.org/impact/universal-design-for-learning-udl.
29 https://eoppimiskeskus.fi/webinaari-esimerkkeja-verkkomateriaalin-saavutettavuustyosta/.
30 https://inclusivepublishing.org/educator/.
31 http://www.esok.fi/oho-hanke/julkaisut/saavutettavuuskriteeristo.
32 https://www.jyu.fi/digipalvelut/fi/ohjeet/moniviestin-ohjeet/video-ja-aanimateriaalin-saavutettavuus.
33 https://www.saavutettavasti.fi/saavutettavatasiakirjat/powerpoint/.
34 https://www.eoppiva.fi/kurssit/saavutettavat-asiakirjat-verkossa/#/lessons/zpnW1nvh4pO_hxuGo7kGivZ3bqw2Sl2V.
35 https://helpx.adobe.com/fi/acrobat/using/create-verify-pdf-accessibility.html#check_accessibility_of_PDFs.
36 https://pave-pdf.org/index.html?lang=en.

RECOMMENDATION ON GAINING MERIT IN OPEN EDUCATION AND OPEN EDUCATIONAL RESOURCES

THIS RECOMMENDATION supports the fourth principle of the national policy, according to which the work carried out in the development of open education and educational resources shall be taken into account in merit criteria and the planning of duties. The purpose of the recommendation is to highlight good practices that help with applying the principle.

INTRODUCTION

Open education in its various forms benefits society as a whole by offering more opportunities for expanding competence and acquiring knowledge and new understanding. This recommendation contributes to ensuring that those promoting open education receive the recognition they deserve for their work and that the promotional work naturally supports their career advancement.

Teachers are the most important promoters of open education, but many other parties also work for open education. For example, higher education institutions support and encourage teachers to use and produce open educational resources and to participate actively in promoting open education at the national level. This recommendation on gaining merit in open education and educational resources is primarily intended as guidance on how to take these matters into account in teachers' merits, but the instructions given in the recommendation can also be applied to other tasks and roles that promote open education, such as:

- researchers and research projects that produce open educational resources
- students who have participated in promoting open educational resources and open education
- persons supporting open education in their own work, such as library experts, researchers, education planners and other support staff
- influencers who have communicated about open education and inspired others to promote open education
- leaders and decision-makers who have made a significant contribution to promoting open education and whose input has had extensive impacts on open education.

It should also be noted that the same person can act in many different roles and promote open education in different ways in each of them.

PRINCIPLES TO BE TAKEN INTO ACCOUNT IN RECOGNISING MERIT

From teachers, promoting open education requires time and competence, and it may constitute an important part of the teacher's work. It is recommended that organisations have clear criteria and guidelines on how the promotion of open education should be taken into account as a part of the evaluation of the teacher's work as a whole, for example, in recruitment, advancement on the career path, determination of pay, funding applications and award of prizes. In addition, it is recommended that higher education institutions in particular ensure that teachers have the opportunity to use their working time for promoting open education and take it into account in their work schedule planning. The most important instructions for recognising merits can be found in Table 1.

Depending on the purpose of the evaluation, it may vary how much weight and importance is given to open education. The persons being evaluated should always be informed about the criteria used and emphases given.

When evaluating merits in open education, many other factors should also be taken into account than the number of published open educational resources and other publications and merits. Things to be taken into consideration include:

- **Quality**: Expert assistance should be used when assessing quality. In the case of open educational resources, the National quality criteria for open educational resources can be applied for quality assessment.

- **Impact**: As far as impact is concerned, the assessment can be based on such factors as download or user volumes of educational resources, the number of people who participate in or complete open courses or lectures, and the feedback received from all of these. Even in terms of impact, the numbers alone do not tell everything, but, for example, the development of an individual learner's competence and the profound impact on a limited community can be more significant a merit than superficial influence on a wider audience.

- **Level of openness**: In principle, the greater the merit, the more open education the teacher has promoted. For justified reasons, it is possible to stretch the principle a little and grant equal merit for, for example, educational resources with more restricted licenses (e.g. no derivatives) as for fully open educational resources. A reason for lower level of openness may be, for example, sector-specific practices or specific risks associated with the content of certain educational resources, such as data getting out of date or sensitivity of content.

- **Cooperation**: One idea of open education is to enable cooperation between teachers and, for example, between teachers and students. In the evaluation, matters such as the use of open materials made by others in the preparation of one's own open educational resources, the co-development of open courses and lectures and educational resources, and the inclusion of students in the development of open education should be seen as a positive issue in the evaluation.

- **The workload and competence required for merit**: As concerns courses, lectures and educational resources, the workload can be estimated based on their scope, for example. In the case of educational resources, the type of material may also be of significance; preparing, say, an online course or an educational game often requires more work and competence than publishing lecture slides.

TEACHER COMPETENCE LEVELS

Open education and educational resources can be developed and promoted in many ways. Everyone can start promoting open education from their own level of competence. As competence develops, more ways and opportunities open up for teachers to promote open education and influence not only students but also other teachers, their own organisation, various national and international stakeholders in education and research, and the rest of society.

Organisations should make it possible for teachers to make use of their development in promoting open education, say, as part of advancement on their career. When assessing the openness of education, different emphasis can be given to ways of promoting open education suited for various levels of competence and the relevant merits. The following division can be used to define competence levels and the merits characteristic of them.

1. Every teacher can take, for example, following measures to promote open education:

   - develop their own competence in open education and related matters (see Competence requirements for open education);
   - make use of open educational resources and software in their teaching; and
   - apply educational practices related to open education in their teaching.

2. As they gain more experience, teachers can take, for example, following measures to promote open education:

   - peer review open educational resources made by others;
   - publish open and accessible educational resources;
   - participate in preparing online courses available for anyone (MOOC) or give lectures or courses open to the general public (e.g., Studia Generalia);
   - help others in open education issues;
   - participate as an expert in open education in the evaluation of other teachers;
   - engage students in producing open educational resources; and
   - openly share or publish their own educational practices (e.g., those related to the planning, implementation or evaluation of education).

3. Teachers with in-depth knowledge of open education can promote open education in a variety of ways, including:

- conduct research related to open education;

- participate in national or international open education networks or projects; and

- lead national or international open education working groups or projects.

ABOUT RECORDING OF MERITS

ORGANISATIONS SHOULD PROVIDE clear instructions on how to record the merits in open education and educational resources in evaluation situations. Merits related to open education and educational resources can be recorded in the CV, the teaching portfolio or the organisation's research information system. The aim is that, in the future, the data related to merits earned in promoting open education and educational resources could be harvested directly from different information systems.

In their guidelines, organisations can divide the merits in open education and educational resources into open educational resources, research outputs concerning open education, online courses and lectures open to anyone, and activities related to open education. If possible, the division should also be taken into account in the organisation's research information system. The same division can also be applied by teachers who want to maintain their own CV, for example.

Open educational resources

The author of the educational resources decides whether the materials are made available for open access. In accordance with the Policy Component 1 – Open Access to Educational Resources[37], it is recommended that the Library of Open Educational Resources (aoe.fi) be used for publishing the metadata of open educational resources. The library improves the findability of materials, and supports the production of metadata and the monitoring of references. In the Library of Open Educational Resources, in addition to the metadata, the educational resources are attached with a license describing their terms of use and other documentation that facilitates the use of the material. The library also creates a permanent identifier for the open educational resources, which enables them to be found and referenced.

In evaluation situations, it is worth highlighting some of the materials of particularly high quality among the published open educational resources. National Quality criteria for open educational resources can be used for selecting high-quality open educational resources. On the selected materials, more information can be given on:

- how much impact the educational resources have had (e.g., download and use volumes, references and reviews received on the educational resources):

- how the materials meet the quality criteria for open educational resources;

- the scope of the educational resources and/or the workload their preparation has required;

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37 https://doi.org/10.23847/isbn.9789525995404.

- collaboratively prepared educational resources and what has been the author's own role in preparing them; and
- if the educational resources have been published under a more limited license (e.g., a licence prohibiting derivatives), why this license has been selected.

Research outputs

Research outputs recorded as merits in open education include:

- research publications on open education and educational resources and
- open research data generated from teaching.

When recording these, established practices for recording research publications and research data should be followed.

Courses and lectures available for anyone

On courses and lectures available for anyone, it is advisable to record such data as:

- the topic and implementation method of the course or lecture;
- the scope of the course or lecture and/or the workload required for planning it;
- on online courses, potential permanent identifier;
- how much impact the courses and lectures have had (number of participants or courses completed and feedback received),
- on collaborative lectures and courses, the author's own role and input; and
- on contact lectures and courses, whether they were free of charge or grounds for carrying a fee (e.g., covering organisational costs).

Activities related to open education

For example, the following activities can be recorded as merits in activities related to open education:

- courses on open education and competence acquired by other methods (in addition to courses completed, authors can verify their competence with, for example, Open Badges);
- use of open educational resources, and open educational practices in one's own teaching and feedback on them;
- the development and sharing of open educational practices (e.g., a brief description of the practices developed and reference to where they can be examined in more detail);
- peer review of open education and educational resources produced by others;
- helping and training others in open education;
- national and international cooperation related to open education; and
- management of national and international open education projects (e.g., reference to project documentation).

Sources:

- Open education and educational resources. National Policy and Executive Plan by the Higher Education and Research Community. Policy Component 1 – Open Access to Educational Resources
- Open Education Awards for Excellence
- Quality criteria for open education. Part 1. Quality criteria for open educational resources

Table 1: Summary of merits in open education. Specifications on items in the table and the criteria used can be found in the text.

Merit	Things to consider when recording merits	Things to consider regarding principles and competence level
Educational resources		
Basic issues (for all educational resources)	The educational resources and their metadata should include a licence describing the terms and conditions of use of the material. Open licences include CC BY and CC BY-SA. It is recommended that the grounds be given if the material is not openly licensed or if it cannot be used free of charge.	The reason for lower level of openness may be, for example, sector-specific practices or specific risks associated with the content of certain educational resources, such as data getting out of date.
	It is advisable to publish the educational resources or their metadata on a recognised national or international platform (e.g., aoe.fi), which guarantees a permanent identifier for the material and access to the metadata for the material – even if the material no longer exists – and a place from which the data can be harvested.	
	Sufficient metadata and other documentation of the educational resources facilitate reuse and are, therefore, an important merit.	
	As far as possible, glossaries, ontologies and standards should be taken into account in the metadata of educational resources, as well as the machine readability of the metadata.	
	The use of open file formats can be recorded as a merit.	
On educational resources selected for assessment (see more)	It is advisable to describe how the educational resources meet such requirements as the national quality criteria.	When doing quality assessment, use expert assistance and national Quality criteria for open educational resources.
	It is advisable to specify the impact and significance of the educational resources (e.g., download and use volumes, references and reviews received on the educational resources):	Please note that download and use volumes alone are not the only indication of impact.
	If necessary, descriptions on the scope of the educational resources and/or the workload required for preparing them can be given.	
	As regards collaboratively prepared educational resources, it is advisable to describe what has been the author's own role in preparing them.	

Merit	Things to consider when recording merits	Things to consider regarding principles and competence level
Research outputs		
Research publications on open education	Compliance with the established practices on research publications.	Can be taken into account especially in assessments focused on research on open education.
Open research data generated from teaching	Compliance with the established practices on research data.	Can be taken into account especially in assessments focused on research on open education.
Courses and lectures available for anyone	Issues such as the following can be recorded:	Can be taken into account especially in the evaluation of more experienced teachers.
	the topic and implementation method of the course or lecture	
	the scope of the course or lecture and/or the workload required for planning it	
	on online courses, potential permanent identifier	
	how much impact the courses and lectures have had (number of participants or courses completed and feedback received)	
	on collaborative lectures and courses, the author's own role and input	
	on contact lectures and courses, whether they were free of charge or grounds for carrying a fee (e.g., covering organisational costs).	
Activities related to open education		
Courses on open education and competence acquired by other methods	Competence can be verified with courses completed and Open Badges.	Suited for evaluating all competence levels.
Use of open educational resources and educational practices in one's own teaching	Can record examples and feedback received.	Suited for evaluating all competence levels.
Developing and sharing open educational practices	Can describe practices developed and provide references on where to learn more about them.	Can be taken into account especially in the evaluation of more experienced teachers.
Peer review of open education and educational resources produced by others	Can provide examples.	Can be taken into account especially in the evaluation of more experienced teachers.
Helping and training others in open education	Can provide examples.	Can be taken into account especially in the evaluation of more experienced teachers.

COMPETENCE REQUIREMENTS FOR OPEN EDUCATION

THESE COMPETENCE REQUIREMENTS have been prepared to support the objectives set out in the National policy on open education and educational resources. Competence requirements define what kind of knowledge and skills the users of open educational resources, the authors of open educational resources and the open education influencers should have. Competence requirements can be used, for example, when organisations plan training courses that provide competence in open education.

The competence requirements are cumulative: the authors of open educational resources are also required to master the competence requirements for the users of open educational resources, and the open education influencers are also required to master the competence requirements for the authors of open educational resources.

USERS OF OPEN EDUCATIONAL RESOURCES

The users of open educational resources understand the basic concepts of open education and are able to set them in a wider field of open science and research, are able to find and use open educational resources in their own teaching, respecting the copyrights and licensing clauses, and are able to assess the quality of open educational resources. In more detail, users of open educational resources are required to:

- be able to explain basic concepts of open education, such as concepts of open educational resources, open educational practices, open-source code and open technology;

- understand the links between open education and the framework of open science and research;

- understand the importance of open education for the higher education and research community and the rest of society;

- know how to use educational resources and other materials in their own teaching and preparing their own educational resources in compliance with the terms and conditions set by copyrights and general licensing clauses;

- know the best channels for finding open educational resources;

- know how to use the Library of Open Educational Resources to find open educational resources;

- know how to identify various forms and formats of open educational resources;

- know how to utilise other open materials in their own teaching and for preparing their own educational resources;

- understand the impact of the accessibility and quality of educational resources on learning outcomes,

- understand the grounds used for assessing
the accessibility and quality of open educational
resources with the help national criteria; and

- understand how open educational resources
can be peer-reviewed.

AUTHORS OF OPEN EDUCATIONAL RESOURCES

The authors of open educational resources know how to prepare, publish and describe open educational resources, understand data protection and information security issues related to open educational resources, and can demonstrate their merits in the preparation of open educational resources. In more detail, authors of open educational resources are required to:

- understand what kind of rights and obligations the Copyright
Act imposes on the authors of educational resources;

- understand how data protection affects the preparation
of open educational resources, such as the permits
required for using photos;

- understand information security issues related to
open educational resources;

- know how to give others access rights to materials
with different licences,

- know how to use the tools for the preparation of open
educational resources, in particular those based on
open-source code and open technologies;

- know how to use national quality criteria for open
educational resources in the preparation of their own
educational resources,

- understand how accessibility requirements and the
Accessibility Directive apply to open educational resources;

- know how to enter the metadata on open educational
resources to the Library of Open Educational Resources;

- know how to publish open educational resources
in the Library of Open Educational Resources;

- understand the principles according to which merits
are gained on open educational resources; and

- know how to include open educational resources
in their own list of publications.

OPEN EDUCATION INFLUENCERS

Open education influencers are familiar with open educational practices, know how to co-develop open educational resources and open online courses, and are familiar with networking practices and practices applied to gaining merit in open education. In more detail, open education influencers are required to:

- know how to apply different open educational practices;

- understand how data protection affects open educational practices, for example, through data protection risks on open platforms;

- understand what is required for preparing open online courses and MOOCs;

- know how to engage students in preparing educational resources;

- understand practices related to co-developing educational resources, such as agreements on rights and responsibilities;

- are familiar with networks related to open education and educational resources;

- know how to use, for example, Open Badges in demonstrating the competence achieved in open education;

- understand the principles according to which merits are gained in open education; and

- know how to record the merits gained in open education in their CV.

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