

EDUCATIONAL HANDBOOK

“Open Educational Resource for VET Teachers and Trainers”

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WHAT IS IT ABOUT?

This educational handbook “Open Educational Resources (OER)” is aimed at (formal and non-formal educators, schools, high education institution (HEI), VET providers and anyone interested in supporting intensive Open Educational Resources use in the learning process. The manual highlights success practices, method and practical examples for effective implementation of OER.

A diverse partnership has delivered this project. These six organisations are based across Europe and have invaluable expertise in VET policy, delivery and engagement:

- **Find An Internship**, (UK Coordinator)
- **Brahea Centre at the University of Turku** (Finland)
- **Euro-Idea Fundacja Społeczno-Kulturalna** (Poland)
- **Youth Europe Service** (Italy)
- **Kainotomia** (Greece)
- **Informamentis Europa** (Italy)

CHAPTER 1: INTRODUCTION AND APPROACH

1.1. What is an OER?



Following the description of the book "Open Educational Mythbusting", by Karolina Grodecka and Kamil Śliwowski, the term Open Educational Resources (OER) describes any resource that is made available to others in open licenses, i.e. licenses that allow anyone to use, adapt and redistribute the resource itself. Educational resources are any material designed for teaching, learning and research used by educators, students and self-learning people (they can be course materials, textbooks, videos, multimedia applications, curriculum maps, podcasts, media, courses, digital assets etc.). OERs can be made available online, on paper, on DVD or in any other format: this means that OER are shared learning, teaching and research resources with legally recognized open licenses-free for people that permit them to reuse, revise, remix and redistribute it.

1.2. What is not an OER?

Obviously not all the educational material found on the web is an OER: in fact, most of the resources available on the internet are closed resources and are copyrighted, so they are not accompanied by a specific license that allows you to copy, adapt and share them.

These materials normally (sometimes there are exceptions to the copyright rules in the country) cannot be used without obtaining specific authorization to do it.



1.3. When was used for the first time the term OER?

The term open educational resources was coined at UNESCO's 2002 Forum on Open Courseware, in which the development of OER was identified as a potential answer to the important aspect of lifelong learning to ensure inclusive, fair and participatory quality education because, permitting to use and adapt the materials to fit them the local context, it is possible to reduce the costs associated with materials and course development: this because the underlying principle behind OER is to provide opportunities to all, and to strengthen the democratization of knowledge by facilitating education and making learning and teaching material available at a larger scale, removing barriers to participation in learning, both for teachers and learners, by:



- saving teachers significant time and effort on resource development,
- advancing student learning inside and outside the classroom,
- encouraging the improvement of materials,
- aiding in the dissemination of best practices.

But it was only in the World Congress on Open Educational Resources held at the UNESCO headquarters in Paris in 2012 that UNESCO encouraged all the countries of the world to adopt open licenses for educational materials created with public funds, promoting and using OER to

broaden access to education at all levels, both formal and non-formal, in a lifelong learning perspective, thus contributing to social inclusion, gender equality and special education and improving both cost-effectiveness and the quality of teaching that learning outcomes.

And recently, in November 2019, UNESCO General Conference UNESCO approved OER Recommendation by underlining again that it is appropriate for OER practitioners to urge for open licensing of educational resources that are developed with public funds.

1.4. European Commission approach

On 25 September 2013, the European Commission launched the Communication 'Opening up Education' to boost innovation and digital skills in schools and universities: this is an action plan to tackle digital problems, which are hampering schools and universities from delivering high quality education. To help kick-off the initiative, the Commission launched a new website, Open Education Europa, which allowed students, practitioners and educational institutions to share free-to-use open educational resources.

The objectives of the European Commission were the following:



Open
Education
Europa
Opening up education through innovation

- stimulating high-quality, innovative ways of learning and teaching through new technologies and digital content.
- helping learning institutions, teachers and learners to gain digital skills and learning methods
- supporting development and availability

of open educational resources (OER)

- connecting classrooms and deploying digital devices and content
- mobilizing all stakeholders (teachers, learners, families, economic and social partners) to change the role of digital technologies at education institutions

So, in the showed action plan, two of the four principal parts were related to Open Learning Environments and OER. In fact:



- a) are opportunities to innovate for organizations, teachers and learners and to reduce costs and increase flexibility in terms of time and space: on one side teachers should be able to gain high digital competences to facilitate their teaching activities and , on the other side, learners, especially the disadvantaged ones, expect to use more and more the digital skills for their learning or work.
- b) Open Education Resources are opportunities to use open knowledge for better quality and access and to help their development the European Commission launched the website, Open Education Europa, a single gateway for OERs produced in Europe, federating existing platforms with advanced browsing and search features to help users find the content.

In June 2018, the website Open Education Europa has been shut down and it was substituted by a new web site, School Education Gateway that is continuing and developing at higher level its previous services, offering online courses. webinars, toolkits, newsletters, surveys, etc.



1.5 Which is the most used system for OER?

The most common licensing system, with which the creator of a learning resource allows others to use its output for free, is called “Creative Commons”.

Creative Commons (CC) licenses are public licenses that can show what other people may do with a specific resource created by an author. In fact, because, as showed before in this guide, each work is normally protected by copyright, CC licenses permit the creator to change copyright terms from the default of “all rights reserved” to “some rights reserved”, giving the permission in advance to share and use his/her work on conditions of own choice.

As well explained in the picture below, CC BY is the most open license because it allows the user to redistribute, to create derivatives, such as a translation, and even use the publication for commercial activities, provided that appropriate credit is given to the author.

CREATIVE COMMONS LICENSES		COPY & PUBLISH	ATTRIBUTION REQUIRED	COMMERCIAL USE	MODIFY & ADAPT	CHANGE LICENSE
	PUBLIC DOMAIN	✓	✗	✓	✓	✓
	CC BY	✓	✓	✓	✓	✓
	CC BY-SA	✓	✓	✓	✓	✗
	CC BY-ND	✓	✓	✓	✗	✓
	CC BY-NC	✓	✓	✗	✓	✓
	CC BY-NC-SA	✓	✓	✗	✓	✗
	CC BY-NC-ND	✓	✓	✗	✗	✓

You can redistribute (copy, publish, display, communicate, etc.)	You have to attribute the original work	You can use the work commercially	You can modify and adapt the original work	You can choose license type for your adaptations of the work.

But all these kinds of licenses work thanks to a non-profit internationally active organization (precisely called Creative Commons) that works to increase the amount of creativity, providing free, easy-to-use legal tools (the licenses) that help the creator give permission for others to use the work in advance under certain conditions.

CHAPTER 2: OER IN PROJECT PARTNERS COUNTRIES

2.1 OER Practices in Finland



National policies and context



Case study 1: OKFI



Case study 2: Association of Finnish eLearning Centre

National policies and context

Opening up education is one approach to improving education. This includes open educational resources, open participatory teaching culture, connecting schools to society, and making students active creators of their own learning and their futures. Changes in the digitalisation of teaching arouse enthusiasm and concerns among teachers and students. Many ethical issues relating to the tools used, privacy, information security, well-being at work, and equality are rising.

The Finnish Ministry of Education and Culture and the National Agency for Education are supporting open education. They have developed jointly the Library of Open Education Resources (OER) which is being coordinated by the CSC – IT Center for Science. In the Library of Open Educational Resources, anyone can search for, find, compile and save own open educational resources from all levels of education. The library was gradually introduced from 2019 to 2020. The service and its OER are available for use by teachers, learners and everyone else in the country by visiting aoe.fi. The OER Service seeks to promote the use of such resources by providing a platform on which materials produced by individuals or in the context of various projects can gain visibility and longevity. By saving educational resources in the service users can ensure that the materials will remain available for use long after the project

that produced them has concluded. They can then be utilized by users both in educational institutions and outside. Materials uploaded to the OER Service must be openly licensed. The service uses Creative Commons licenses. The license is indicated in the material description of the resource in question. All uploaded resources must also be accompanied by material descriptions, which help users find and evaluate them. The descriptions include information e.g. on who has created the resource and how it relates to curricula.

A new law on Provision of Digital Services entered into forces on 1.4.2019 and aims at promoting the availability, quality, data security, and accessibility of digital services, and improve everyone's access to digital services. The Act implements Directive (EU) 2016/2102 of the European Parliament and of the Council on the Accessibility of Public Sector Websites and Mobile Applications, referred to as the "Accessibility Directive".

In Vocation Education, the use of OER is supported. In developing independence skills, QR codes have been utilized to support ERP. The method has been applied in such a way that the teaching staff and the students together produce videos of different everyday situations and challenges, which are published on YouTube, for example. Students upload videos using a QR code, either on tablets or on the phone. The role of the facilitator as a facilitator of learning in different environments of learning is important. The teacher must have a situational awareness in order to understand what learning tasks and IT applications are appropriate to implement in which situations and when to move to the background, either temporarily or completely. The tablet and any other electronic device gives the student access to new content and brings with them new obligations and rules. The role of the vocational education centre is also to guide the learner from everyday hobbies towards the professional use of programs and equipment and professional ethics. The teacher is always in charge of guiding and safeguarding good professional use of digital technology during training, together with learners and companies where the training is conducted. Teachers get support from different networks, online and offline, e.g. Open Knowledge Finland <https://www.okf.fi/>, the Association of Finnish eLearning Centre <https://eoppimiskeskus.fi/en/>, Learning online <http://www.oppiminenonline.com/>, etc.

Regarding open licenses, Creative Commons Finland became the standard for public administration license in 2014. Creative Commons Finland is part of the Creative Commons Global Network, joined by Finland on December 2018. Before that CC Finland was an affiliate organization operating under Aalto University. CC Finland started operating already in 2002. Since 2019, Creative Commons Finland has been affiliated with Open Knowledge Finland, mentioned above. Recently, the European Commission has finalized its own licensing decision and has reached the exact same result: CC BY 4.0 and CC0.

Case study 1:

Open Knowledge Finland – OKFI

Open Knowledge Finland (OKFI) is a registered not-for-profit association and is part of the wider international Open Knowledge network. The association was founded in 2012 and has more than 500 members who present widely the Finnish open -scene including individuals, companies and other organizations. OKFI is also a wide network of people and projects related to open knowledge. Since 2012 aOKFI has been developing several activities and been involved in different projects, most of them funded by the Board of Education:

- ✓ MyData - MyData has become the de facto standard for activities around personal data and its use. OKFI started the annual MyData conferences and in the fall of 2018, coordinated the creation of MyData Global ry, the first ever global NGO based in Finland and Finnish law
- ✓ Online courses for open data – OKFI produced and published courseware for two courses, one for publishers of open data, and one for reusers of open data. MOOC were also conducted
- ✓ Freedom of information service: tietopyynto.fi – OKFI created and keep hosting tietopyynto.fi, which anyone can use to send data requests based on the Freedom of Information Act to any public official in Finland
- ✓ Finnish standard on open licenses - Finnish public sector institutes are guided by a set of official recommendations. OKFI representatives were involved in the working group that created JHS 189, The license for using open data in 2014. This recommendation posits Creative Commons Attribution 4.0 and Creative Commons Zero as the two licenses to use when Finnish public sector publishes open datasets
- ✓ Master classes on open data publication – OKFI created two parallel master classes, one for the GLAM sector and one for the public sector. The materials are published openly and the courses were completed successfully
- ✓ Hackathons – OKFI has organized numerous hackathons such as Hack4FI, Demokratiahack and Perustulohack

Criteria	OER	Yes, how	No, how
Contributes to a VET teacher's continuing professional development plan	x	The network supports the teachers in using open resources while considering data protection issues. Through the network teachers can get support	
Is supporting development of divergent thinking skills	x	Tools such as open licences supports teachers in being creative and sharing their methods with others	
Is supporting the development of lateral thinking skills	x	Through hackathons and MOOC teachers can develop their problem solving skills	
Is supporting the development of creative skills	x	The network supports teachers to develop creative skills and share them with others in a safe environment	
Is supporting the employability of students	x	By using OER in the classroom, students are aware of available online tools and can use them in the future, while considering the security of information	
Is supporting the development of DT toolkits for teachers	x	The network aims at protecting the end-users and making sure the data are shared respecting the rights of the authors	
Is developing industrial currency of teachers and working-life relevancy of education	x	Teachers are better equipped to use and share many material, including material from partner organisations while respecting personal data	
Has an element of innovation relevant to teachers	x	Teachers can share online material and are innovative in a safe environment	
Has proof of teacher & employer co-design			x

Case study 2:

The Association of Finnish eLearning Centre

The Association of Finnish eLearning Centre is a national association open to all. The Association is an independent non-profit promoter of web-based learning; a cooperation forum for developers of digital educational activities and ways of working. The Association promotes an open culture of doing and working together. The members include private persons, communities, and organisations. The Association operates through membership fees and funding from various projects conducted to advance the information society and web-based

learning, and from event productions and the sales of different services. The Association works closely with decision makers in the public and private sectors.

The Finnish eLearning Centre is well-known particularly in development networks in which learning, training, and alternative forms of work are tried out and conducted using open multichannel digital services. The Association also takes part in EU-funded projects such as Openness speeding up Learning Networks. The members benefit from the latest information about web-based learning published in SeOppi magazine in Finnish twice per year, and in English once per year. The Association offers a diverse selection of projects, information services, and events for everyone interested in the use and research of digital educational products and their development networks. Materials are openly published on the web.

Criteria	OER	Yes, how	No, how
Contributes to a VET teacher's continuing professional development plan	x	The network is a cooperation forum for developers of digital educational activities and ways of working. Teachers can share their activities and learn from others	
Is supporting the development of divergent thinking skills	x	The Association promotes an open culture of doing and working together. Members can share ideas and become creative	
Is supporting the development of lateral thinking skills	x	The Association promotes an open culture of doing and working together. Members can solve a problem or issue together	
Is supporting the development of creative skills	x	By collaborating, members from unique background and disciplines can together come up with creative methodologies	
Is supporting the employability of students	x	Teachers have access to a wider range of web-based teaching material on which there can base their teaching on, offering a wider perspective to their students	
Is supporting the development of DT toolkits for teachers	x	Teachers are focusing on their students and through this forum can share practice and concerns to improve their teaching environment	
Is developing industrial currency of teachers and working-life relevancy of education	x	The members of the Association include private persons, communities, and organisations	
Has an element of innovation relevant to teachers	x	Learning, training, and fresh forms of work are tried out and conducted using open multichannel digital services thanks to the Association	
Has proof of teacher & employer co-design	x	Members are invited to join events open for everyone interested in the use and research of digital educational products and their development networks. Through the open forum, teachers and employers are encouraged to co-create	

2.2 OER Practices in Greece



National policies and context



Case study 1: OER CANVAS



Case study 2: GreenSkills4VET

National policies and context

The Greek world demands more reforms. The energy market, the construction field, the human resources management, and particularly the field of Vocational Education and Training need to embrace digital revolution. OER aims to improve the quality of education and to enhance sharing, innovation, and creativity while simultaneously disseminating knowledge and information worldwide.

The development, availability, and use of Open Educational Resources (OERs) offers many opportunities to reshape special and general education. OERs is an umbrella term used to define any type of educational material that is in the public domain or uses an open license. The chief characteristic of these open materials is that anyone can legally and freely copy, use, adapt, and re-share them. OERs vary from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video, and animation. (Accessible Open Educational Resources For Students with Disabilities in Greece: They are Open to the Deaf).

The Greek Academic Network (GUnet) is a non-profit organization, founded in 2000, for the coordination of the development, promotion, and dissemination of advanced network services and applications for the academic community in Greece. GUnet has as members all the Universities and Technological Educational Institutions (TEI) in Greece (20 Universities and 14 TEI). GUnet provides e-learning services to its members through its Center for e-learning and Multimedia, and the learning management system OPENeCLASS. Since 2012, GUnet coordinates the development of opencourseware and open educational resources by its

members. Under this context, Greek Universities and Technological Institutes have adopted and introduced these new technologies to support and improve the educational process. The aim of the project "Central Registry of Greek Open Courses" is to support educational institutions in the development, provision, and hosting of open digital academic courses, which will be available to the public. The project is the design and delivery of services, the development of related software and software, the writing of specifications, instructions, and the provision of training and consulting services to higher education institutions and their staff. The aim is to make available to the public a central open-source search portal hosted on the Institution Portals. A percentage of digital courses will have accompanying multimedia material, such as video lectures. Retrieved from <http://ocw-project.gunet.gr/>

In the summer of 2012 the Creative Commons of Greece, a non-profit organization whose main objective is to support open and accessible internet, as well as the use, distribution, and exploitation of knowledge and creativity through free licenses, launched the "Open Educational Resources" which is considered to be one of the most important and promising movements. The idea behind Creative Commons is that some creators may not want to exercise all the intellectual property rights they rightfully acquire under the law, namely, Creative Commons licenses are an easy and reliable way to turn the strict legal term "without prejudice to all legal rights to "Some rights reserved or even "No rights reserved". (Retrieved from <https://creativecommons.ellak.gr/schetika-me-to-cc/>)

Case study 1

OER CANVAS

OER Canvas was designed to help educators and creators of open educational resources follow a step-by-step process to develop their ideas. Designed especially for people who have experience in creating educational material and know-how to use Creative Commons licenses. The overall project can be designed with the help of the template starting with the title. On the left, the designer can complete the details of the project by answering questions such as who the material is for and what are its possible uses while on the right it organizes the timing, resources required, and potential partners. The OER-Canvas offers teachers and others who create educational materials support in the collection of ideas and initial concretization of their OER project. It guides you through the individual planning steps. It is intended for all those who already have experience in the development of learning materials and know about the different CC licenses.

Although there are guides that cover licensing and the educational value of resources, there has so far been no general template for creating open educational material. This gap came to fill the OER Canvas created by the Open Education Working Group in collaboration with OER.info.

You can download the Canvas in many different languages [here!](#)

Case study 2

GreenSkills4VET

GreenSkills4VET is a project by 7 partner-institutions of 5 European countries running from October 2016 to July 2018. The GreenSkills4VET-Partnership aims to develop exemplary learning units dealing with issues concerning the three dimensions of sustainable development (economic, environmental and social). The sectors chosen to serve as examples are Logistics and Health Care. Trainees and Trainers can gain the knowledge and skills needed to generate green competencies in their workplaces.

The learning units provided to you are Open Educational Resources (OER = Open Space Material). The name of this format reflects a) the use of open licenses, such as Creative Commons, b) the active role of learners in the (participatory) learning process and c) the freedom for teachers to use, adopt and share materials according to their specific needs. The GreenSkills4VET-Project is supervised by the NA at BIBB, the national agency for the EU education program Erasmus+ in VET (=Vocational Education and Training) in Germany.

Visit the project website [here!](#)

2.3 OER Practices in Italy¹



Educational and national context

Understanding the status of Open Education in Italy, it is important to consider how the Italian education system is lagging most OECD countries in terms of infrastructure and use of digital, both in schools (Avvisati et al. 2013) both universities (Ghislandi and Raffaghelli 2016). The university is behind in the digitalization of teaching (Beltrametti 2014) and the creation of telematic universities since 2003 has not helped the system (Ferri 2017). These delays are affected by a general difficulty regarding digital in our country: the DESI index (Digital Economy and Society) of the European Commission, which considers parameters such as capacity availability, digitalization of public and private services, and digital skills, in 2019 places Italy at the twenty-fourth place in Europe (European Commission 2020). However, also after a push received by the European Union and the corresponding availability of funds to finance innovative activities in education, the attention of the Italian educational community towards the innovative use of technology, including the adoption of open educational resources and practices, is relatively high (Ghislandi and Raffaghelli 2016). Showed, also, by the constant presence of OERs and MOOCs in the EMEM programs, the main Italian Conference on e-learning, and because two of the main international conferences on the Open Education theme, in 2019 took place in Italy, organized respectively by the Politecnico of Milan and the University Federico II of Naples.

¹ FABIO NASCIMBENI

"OER, MOOC E PRATICHE DIDATTICHE APERTE VERSO L'INCLUSIONE DIGITALE EDUCATIVA OPEN EDUCATION - Capitolo 5 - Copyright © 2020 by Franco Angeli s.r.l., Milano, Italy. ISBN 9788835112112

Regarding the copyright law, in Italy the resources created by teachers and those created for commercial purposes are not substantially distinguished: in both cases, the use of these resources must be remunerated, which may dissuade teachers from creating OER. Also, the Italian legislation is rather weak on the educational exception, not allowing the translation or adaptation for copyrighted resources (Nobre 2017), and offering publishers the possibility to allow the use or not (De Rosa and Zuccarini 2011). In all areas of education, understanding who owns the intellectual property rights of the resources produced by teachers and can then decide which license to apply is still a problem not completely solved.

What remains to be seen is how Italy will adopt the recent copyright reform of the European Union, which can be interpreted in more or less restrictive terms (Genna 2019).

The development and use of OER and Open Practice are explicitly present in the National Digital School Plan of 2015, while in the field of the university there is currently no real political focus on Open Education approaches that has resulted for example in initiatives in support of OERs or mentions of OERs in public university policies (Tammaro et al. 2016). In the school sector, the OERs made their appearance in national public policies as early as 2013, with the Digital Books Decree. After two years, the OER is assigned one of the 27 actions of the National Digital School Plan (Ministry of Education, University and Research 2015) to build a functional system of rights and licenses for Open Educational Resources. In addition to this specific action, it is interesting to note that the National Digital School Plan (PNSD) was inspired by a rather open vision of education, in terms of both learning practices and resources and the involvement of actors outside the school as businesses and local administrations (Inamorato dos Santos et al. 2017). The Italian university community is quite active concerning the use of Open Resources (Cinque and La Marca 2013; Savelli 2016), and the debate on whether or not to invest in MOOCs, and under what conditions, is rather lively (CRUI 2018; Chiappe et al. 2015). Most Italian MOOC platforms release their content with open licenses, and without time windows to access it. This is probably because, unlike the more privatized university contexts such as those in the United States or the United Kingdom, the Italian university system lives mainly on public funding and therefore universities do not assign a clear market value to their open courses, considering them as part of their third mission. The first example of this approach is EduOpen, the multi-university MOOC platform launched in 2013 that brings together 20 universities and offers 245 courses, proposed both as individual learning experiences and organized in learning pathways, all based on content released with Creative Commons licenses. At the end of the course, participants can obtain a free certificate of participation and an open badge and can

take, for a fee, an attendance exam at the university that offers the specific MOOC to obtain credits corresponding to the course. A second example is the Federica Web Learning platform, launched by Federico II University in Naples already in 2007, then five years before the boom of the MOOC, which today has more than 300 courses whose content is released through open licenses (De Rosa and Zuccarini 2011). And at an international level, in Italy too the focus is shifting from the OER to the Open Educational Practices (Pantò 2013), with a growing interest in the recognition of learning through open activities (Inamorato dos Santos et al. 2016). The potential impact of OERs on educational innovation was recognized by the MIUR as early as 2013 when the Ministry cited digital textbooks and OERs as tools to promote pedagogical and technological innovation within educational and training dynamics (MIUR 2013). Despite the increasing interest of universities in the use of innovative pedagogical practices, in many cases, teachers cannot devote the necessary time to teaching activities, to the detriment of educational innovation, given the effort required to produce, seek and adapt quality OER as well as to implement open learning strategies (Comba 2008). The recent COVID-19 emergency has revived the discussion on how to combat the dynamics of educational exclusion, and open resources can certainly play a key role in this (Huang et al. 2020). In the field of school education and VET, there are several platforms linked to OER and open education. Among the public initiatives, Indire recently launched the “D.I.share project”, a platform that provides teachers with a range of resources and tools for online teaching, which collects the legacy of several previous projects that aggregated OER for teachers, such as PuntoEdu. Managed by Indire, Scuola Valore is instead an online archive of learning paths, activities, and content that allows access to more than 800 resources in different subjects, adapted to the different orders of schools, and downloadable without the need to register. In terms of copyright, the platform allows teachers to use the content for non-commercial educational and scientific purposes, but at the same time, all the content of the platform is protected by copyright and therefore does not allow the remix of resources. This platform is representative of the OER scene in the school sector in Italy, where good intentions are in many cases not reflected by the most suitable copyright approaches. Also, in this case, all the contents are freely usable thanks to the educational exception of the copyright, but they remain the property of the funding agency. In terms of private initiatives, WeSchool offers many videos, texts and exercises, products and uploaded by teachers and experts, as well as students, which can be evaluated socially by users and issued with Creative Commons licenses. Alexandria is a repository of school resources based on the OER philosophy, in which teachers can upload their content and produce resources through a dedicated editor. Finally, there is a vast ecosystem of sites, blogs, and social network

pages managed directly by individual teachers, often not easy to find and not linked to a general repository (Fini 2012). Examples in this sense are The Ariadne Thread, a collection of courses issued with open licenses for secondary schools by a team of teachers, Mathematically, a collection of resources on mathematics produced collaboratively and issued with open licenses, and Bookinprogress, a portal with open textbooks by a network of secondary schools. Finally, it is worth mentioning the open-access magazine Bricks, which collects articles on teaching innovation practices paying close attention to Open Education.

Case Study 1

Educazione Aperta Italia (Open Education Italy)

“Open Education Italy” promotes in Italy Open Education, intended as a connection to the Open Data sector and civic participation. “Open Education Italy” is a network of experts, teachers, trainers, researchers, entrepreneurs, and students that aims to promote Open Education in Italy. Open Education is intended as project and approaches that aim to remove any barriers to the access and to the fruition of the education process, in which teaching methods, infrastructures, and tools are shared in a free and transparent way. The Open Education is based on the possibility to make available Open Education Resources (OER), educational materials, in digital format, made available with licenses that allow reuse, modification, and distribution.

The main points are:

- Facilitate the collaboration: in the Open Education sector among experts and different institutions as schools, universities, public administration, associations or cultural centers), both national and international level;
- Creation, valorization, exploitation of innovative practice in the Open Education sector;
- The study of the potentiality of open approaches in several fields: operate in education, resource, publishing, etc. to disseminate the cultural sharing through open approaches;
- Create a network with the national and international decision-makers: so that the principles of Open Education will be disseminated widely, as well to institution level.

How do work the policy and the network?

Firstly, Open Education Italy is a community of practice, non-profit. The participants cooperate with each other, both online and with periodical meetings, through the sharing of ideas, resources, and experiences. Finally, Open Education Italy has not elected a spokesperson, the group of most active members is constantly upgraded, voluntarily and it handles all activities.

The primary goals of an educational system have to be to remove all unnecessary barriers to access, use, and completion of educational and training activities, paired with free and clear access to the educational resources. Through the network, the digital can offer innovative and potential opportunities to approach all education levels, considering also the Lifelong Learning, and then there are the opportunities to have an equitable development of all levels of society, giving priority to public initiatives and supporting the opening up of educational resources as a tool for free and as far as possible free access to education.

It is possible consulting the Open Education Italy website: <https://educazioneaperta.eu/larete/>

Criteria	OER	Yes, how	No, how
Contributes to a VET teacher's continuing professional development plan	x	The network guides the teachers in using Open Resources, allowing them to have the support and including all categories.	
Is supporting the development of divergent thinking skills	x	The Open Resources is considered an open and clear tool and in particular, allows teachers to share the methodologies and activities.	
Is supporting the development of lateral thinking skills	x	Thanks to events, workshops, etc. It is possible to improve problems solving skills.	
Is supporting the development of creative skills	x	Open Education Italy supports the dissemination of creative skills and allows exchanging them among the teachers and trainers	
Is supporting the employability of students	x	OER is a tool used by students at school, in this way they will have the possibility to use this in the future and a job prospective	
Is supporting the development of DT toolkits for teachers	x	The network has the aim of protecting both the users of the tools and their data shared	

Is developing industrial currency of teachers and working-life relevancy of education	x	The teachers are advantaged to use and share with their student's materials, tools, and digital methodologies, as well documents and materials by partners	
Has an element of innovation relevant to teachers	x	The teachers share online, in digital format, materials, and innovative tools	
Has proof of teacher & employer co-design	x	The network makes available tools and allows learning both to teachers and entrepreneurs, and these two sectors could cooperate with each other to disseminate the innovative methodologies.	

Case Study 2

Online Learning Course- OERup!

The online Learning course OERup! allows to find, create and use Open Educational Resources (OER) and implement Open Educational Practices (OEP) in the daily work. The course is designed for teachers, trainers, training consultants, and also for those who run adult education institutions.

The course is available in four different languages: Italian, English, Spanish, and German. It is free to use and published with an open license, to be used daily.

OERup! has structured into 6 modules:

M1: What are Open Educational Resources (OER) and Open Educational Practice (OEP)

M2: License Open

M3: OER, now it's the moment

M4: Anyone can do it

M5: OER and OEP in class

M6: OER and OEP as part of a strategy

What is the Open Educational Practice (OEP)?

The mere existence of Open Educational Resources does not ensure the use of these resources in educational-didactic practice. The term Open Educational Practices (OEP) describes practices that support the (re)use and production of Open Educational Resources through

institutional policies, promoting at the same time innovative pedagogical models and respect and empowerment of learners as co-producers of their lifelong learning experience.

The OERs represent the first step towards the adoption of open teaching and networking methodologies, which can increase the involvement of students, their participation, and their motivation.

Publishing an Open Educational Resource is as much a business decision as teaching and learning or academic research. OER initiatives can raise interesting questions for institutions/companies on issues related to legal issues, risk management, accessibility, and quality of open content. In many organizations, this responsibility can be shared between faculties or departments and may need to be reconsidered with the adoption of a new institutional approach. Essentially, OER initiatives are related to institutional change and require approaches and staff support to change concerning a cultural change that may seem threatening. The change in academic practice has been central in the three-year program.

The website of the course: <https://www.oerup.eu/it>

Criteria	OER	Yes, how	No, how
Contributes to a VET teacher's continuing professional development plan	x	The course helps the teachers in using Open Resources, allowing them to have the support and including all categories.	
Is supporting the development of divergent thinking skills	x	The OERs represent the first step towards the adoption of open teaching and networking methodologies. Involving students with their participation and their motivation is stimulated the discussion of divergent thinking skills.	
Is supporting the development of lateral thinking skills	x	Thanks to events, workshops, etc. It is possible to improve problems solving skills.	
Is supporting the development of creative skills	x	OERup! the online course contributes to the dissemination of creative skills and allows exchanging them among the teachers, trainers, and training consultants.	

Is supporting the employability of students	x	With OERup! students will therefore not be passive recipients of knowledge but will feel that they are producing original content, adapted to their needs. This can be a starting point for future editions of the course, where other students will improve what previously produced.	
Is supporting the development of DT toolkits for teachers	x	The OER network has the aim to protect both the users of the tools and their data shared	
Is developing industrial currency of teachers and working-life relevancy of education	x	The teachers are advantaged to use and share with their student's materials, tools, and digital methodologies, as well documents and materials by partners	
Has an element of innovation relevant to teachers	x	The users can share online, in digital format, materials, and innovative tools	
Has proof of teacher & employer co-design	x	The network OER promotes cooperation among producers, users, and those who improve it or those who reuse it. This has to be designed and developed within a wider learning environment that includes core activities to support learning.	

2.4 OER Practices in Poland



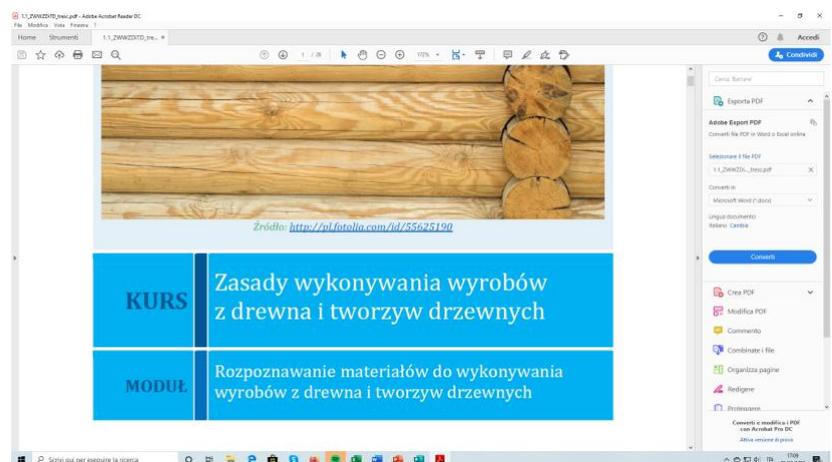
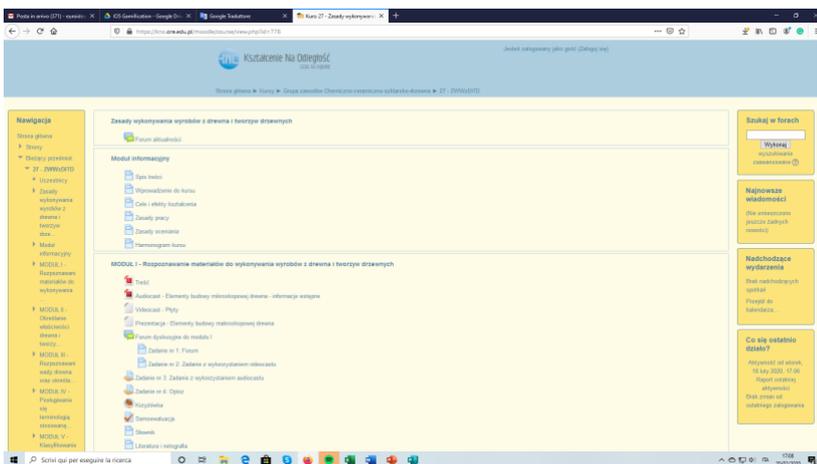
-  **Case study: On-line repository of vocational training courses**
-  **Summary and best practices description**
-  **Aims of best practices**

Case study

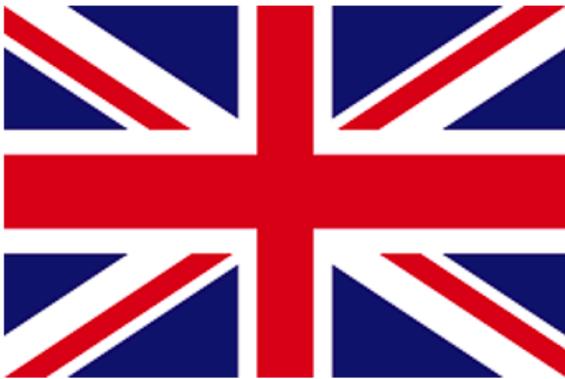
Country:	Poland
Category:	Open Educational Resources (OER) for VET
Title of Best Practise:	On-line repository of vocational training courses
Organization name:	Polish Agency of Entrepreneurship Development (PARP), Ministry of Economy
Give a summary/description of the best practice (maximum 100 words):	<p>What</p> <p>Massive Open Online Courses database</p> <p>This is an official database on training courses for VET. The repository comprises 169 on-line vocational training courses developed as part of the KOWEziU system project "Model of the system for the implementation and dissemination of distance education in lifelong learning".</p> <p>How does it work</p> <p>The courses are mainly dedicated to students of qualifying vocational courses, however, individual course modules (presentations, films, podcasts) can also be successfully used during classes at school.</p>

	<p>Rules for using the repository: each interested school/institution can download the course for free and install it on its own Moodle e-learning platform (mbz file, Moodle 2.6, and source materials), each course is available as a preview (you can see what the e-learning course looks like).</p> <p>There is a succinct description of the training program that contains: Table of Contents Introduction to the course Aims and learning outcomes Work rules Assessment rules Course schedule</p> <p>The learner might apply for the training directly on the platform.</p> <p>There is a vast offer of OER for professional and specific skills development on the platform. Some specific sectors are: Economic, financial, and office professions group Group of cosmetics and hairdressing competitions Chemical, ceramic, glass, and wood professions group Transport professions group Construction professions group A joint group of Construction and Wheel and Rail Road (Railroad) professions Group of professions Sanitary installations, external networks, and industrial installations Electricity, electronic and teleinformation group Group of jobs Mechanical Group of Mining, metallurgy, and foundry professions Group of food professions Gastronomy group of professions A group of tourist and hotel competitions Group of professions Plant cultivation, animal husbandry, and breeding Group of professions Environmental management Forestry professions group Healthcare professions group Group of professions Protection and security of persons and property E-learning courses common to all professions</p>
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<p>Aim/s of the best practice concerning VET:</p>	<p>Model of the system for the implementation and dissemination of distance education in lifelong learning.</p> <p>The service aims to offer competencies development according to the market needs and national VET strategy.</p>
<p>Further reading/Direct Links to Best Practise:</p> <p><i>(website, books, journals, articles)</i></p>	<p>https://kno.ore.edu.pl/</p>



2.5 OER Practices in the UK



National context



Case study 1: DELILA



Case study 2: OTTER

National context

The UK increasing competitiveness in the labor market driven by an increase of graduates, organisational economic challenges, and reduction of mid-level jobs represent challenges that can be addressed by the use of Vocational Educational and Training by providing learners with non-traditional learning outcomes that can complement their traditional education, thus making them more versatile, complete and well-rounded professionals. Based on these purposes, OER shas a tool by educational institutions to support their learners' personal and professional development.

For instance, noticing the increased popularity of OER in the UK the Hewlett Foundation funded the OER Research Hub, which has the purpose of analyzing and researching the impact of OER on the UK. The OER Research Hub activities operate under the following assumptions:

- Use of OER leads to improvement in student performance and satisfaction;
- Open education models lead to more fair access to education, serving a broader base of learners than traditional education;
- Using OER leads to critical reflection by educators, with evidence of improvement in their practice;

- OER adoption at an institutional level leads to financial benefits for students and/or institutions;
- Informal learners use a variety of indicators when selecting OER;
- Informal learners adopt a variety of techniques to compensate for the lack of formal support, which can be supported in open courses;
- Open education acts as a bridge to formal education, and is complementary, not competitive, with it;
- Participation in OER pilots and programs leads to policy change at the institutional level;

A study conducted by the OEC Research Hub demonstrated that OEC material is associated with a wide range of positive outcomes for learners and educators in the UK such as student performance, increased reflection by educators, and relevant supplementation to formal studying.

Case study 1

DELILA

The project DELILA (Developing Educators Learning and Information Literacies for Accreditation) comprises a joint project between the London School of Economics and Political Science (LSE), the University of Birmingham, CILIP Information Literacy Group and funded by JISC (Joint Information Systems Committee) and the HEA (Higher Education Academy).

This project's major purpose was bringing together library staff and HEA accredited leaders to adapt and make online the resources available in these educational institutions.

This comprised focusing and converting existing educational and teaching content from the CLT, LSE Library into an OER format by establishing a dedicated free and online database to store these resources. The materials were also made available in a national learning repository called Jorum Open.

The LSE has recognised that “DELILA highlights how the Higher Education Academy has recognised the value of embedding digital and information literacy into teaching qualifications for those at the higher education level. By sharing LSE and Birmingham’s resources with the community, the project team hopes to encourage good practice in the field. It may also lead to a wider recognition of the need to develop the digital and information literacy skills of both staff and students across higher education”.

For more information about DELILA:

<https://blogs.lse.ac.uk/impactofsocialsciences/2011/07/13/proving-the-value-of-digital-and-information-literacy-in-higher-education-through-project-delila/>

<https://delilaopen.wordpress.com/about/>

<https://www.slideshare.net/seckerj/delila-project-overview>



Case study 2

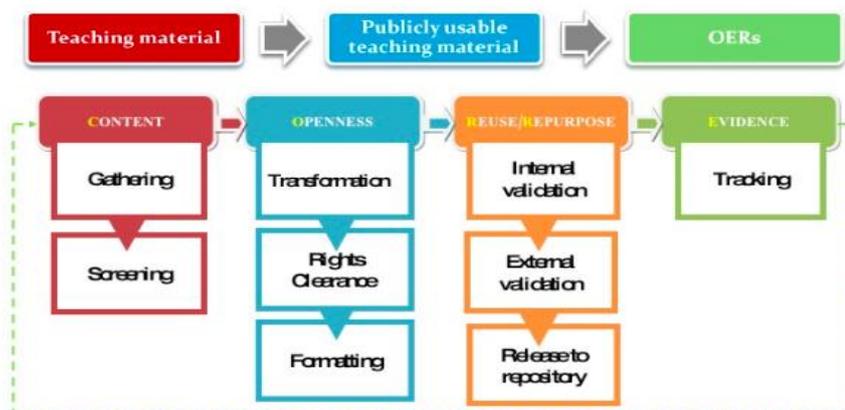
OTTER

The OTTER project was a project designated Open, Transferable, and Technology-enabled Educational Resource led by the University of Leicester and funded by the UK High Education Academy and JISC. It consisted of enabling, implementing, and evaluating online systems that support individuals, teams, and departments to release high-quality open educational resources for free access that can be reuse and shaped by users with a perpetual license.

This was accomplished by a contribution from the University of Leicester of resources from 9 different educational departments from Science to Law, equivalent to 360 credits of a University qualification in online platforms such as Jorum Open and Leicester’s online platform.

At the heart of OTTER was a framework focused on content, openness, reuse/repurpose and evidence (CORRE), which supported how this project addressed one of the limitations regarding OER - Copyrights limitations. By creating open access to OER worth 360 credits from the education department with an open license in perpetuity, users could access and use the resources confidently knowing that the material had a reliable source coupled with a timeless license².

The CORRE evaluation framework



² Weller, M., De los Arcos, B., Farrow, R., Pitt, B. and McAndrew, P., 2015. The impact of OER on teaching and learning practice. *Open Praxis*, 7(4), pp.351-361.

2.6 Online Survey Research



Survey research is defined as “the collection of information from a sample of individuals through their responses to questions”³.

For accurate insight into the use or creation of Open Educational Resources (OER) in VET in the European context, we conducted an Online Survey.

The survey aimed at two target groups: Educators and Learners. Besides, the survey was created with Google Forms and shared via emails by the project partners. In total, we received 88 responses from the target groups.

³ Check & Schutt, 2012, p. 160

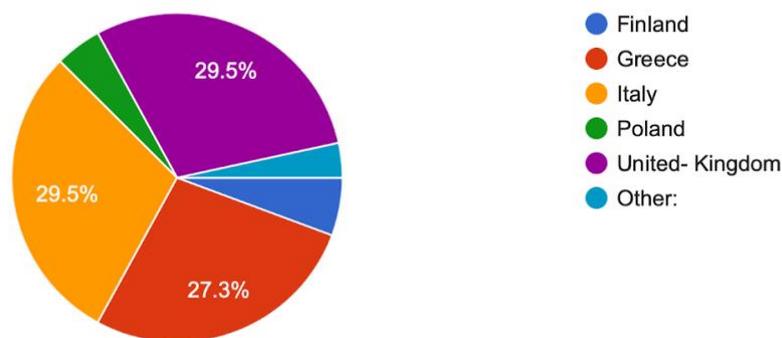
2.7 Findings Analysis

The project consortium comprises six organizations from **five EU countries**.

The **88 responses** we received, were from the following countries: **Finland (5.7%), Greece (27.3%), Italy (29.5 %), Poland (4.5 %), United- Kingdom (29.5%)**.

1-Country of residence of the Participants

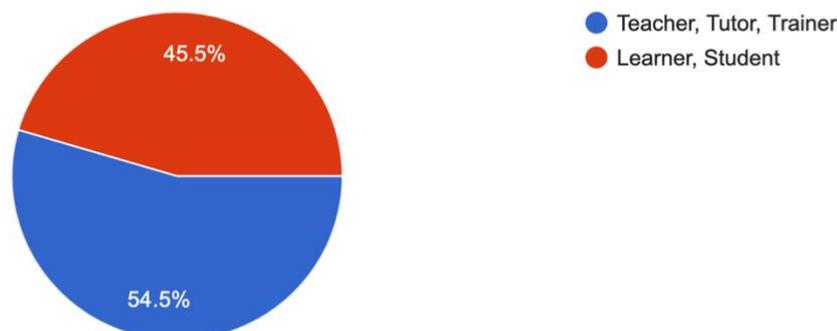
88 responses



The participants were selected based on the following criteria: Job title or profession, academic background, subject expertise, familiarity with the use or creation of digital content. The target groups were divided into two categories: Teacher, Tutor, Trainer, and Learner, Student. **(54.5%) Teacher, Tutor or trainer** responded compare to **(45.5 %) from Learner, student**.

2-Job title of the participants

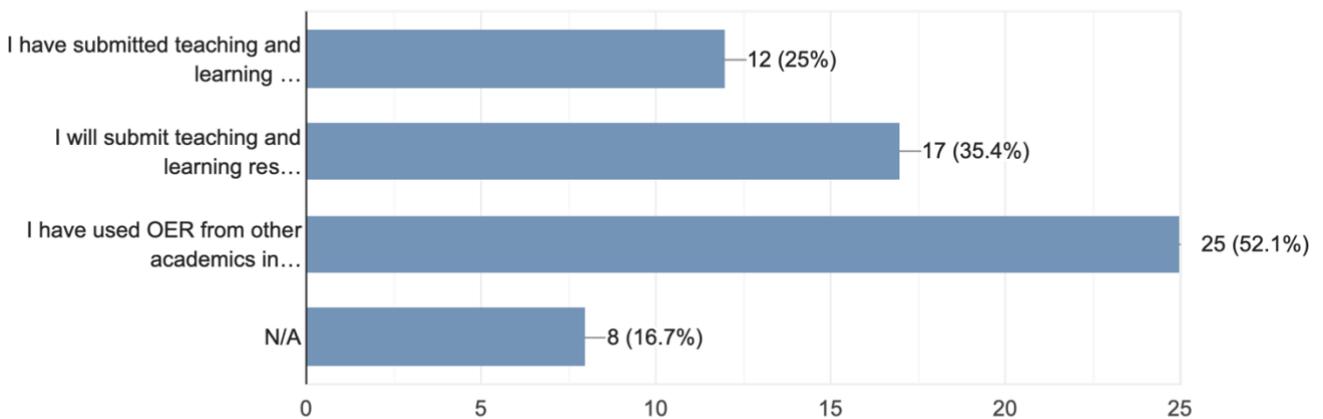
88 responses



In this section, Teachers were asked, if they ever submitted teaching materials, learning resources as OER materials, or used OER from other academics. **(52.1 %)** admitted that they have used OER from other academics in their teaching. **(35.4 %)** will submit teaching and learning resources for publication as OER in the future and **(25 %)** have submitted teaching and learning resources for publication as OER.

3-Submitting and Using OER

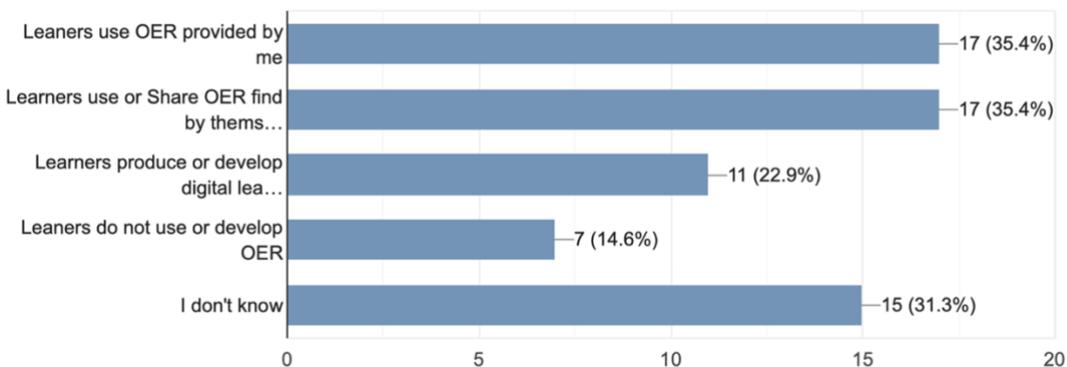
48 responses



Both questions “Learners use OER provided by me” and “Learners use or Share OER find by themselves” have the same percentage **(35.4 %)**, this case shows that learners have interest or knowledge of OER. The second highest percentage is **(31.3 %)** “I don’t know “and **(22.9 %)** “Learners produce or develop digital learning material and share them as OER”. This shows that learners have OER experience gained by themselves or taught by teachers.

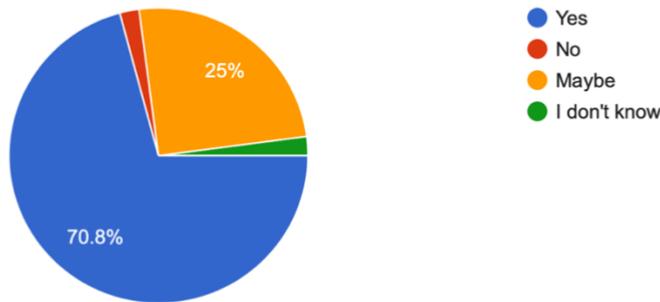
4-Do your learners use or develop OER?

48 responses



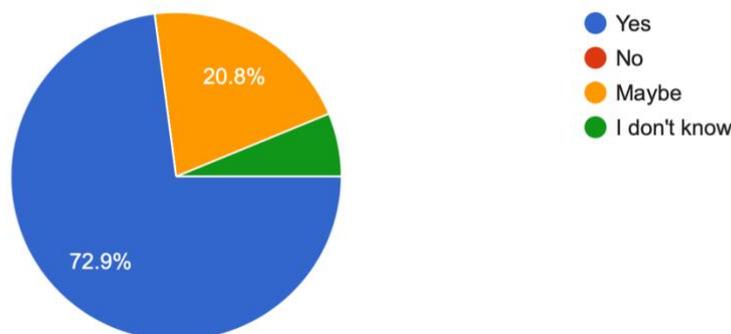
Regarding the availability of teaching materials, **(70.8%)** responded “yes” for teaching materials to be available openly to learners and academics while **(25%)** are unsure and “No” and “I don’t know” have both **(2.1 %)**.

5- Would you be happy to make teaching materials available openly to learners and other academics?
48 responses

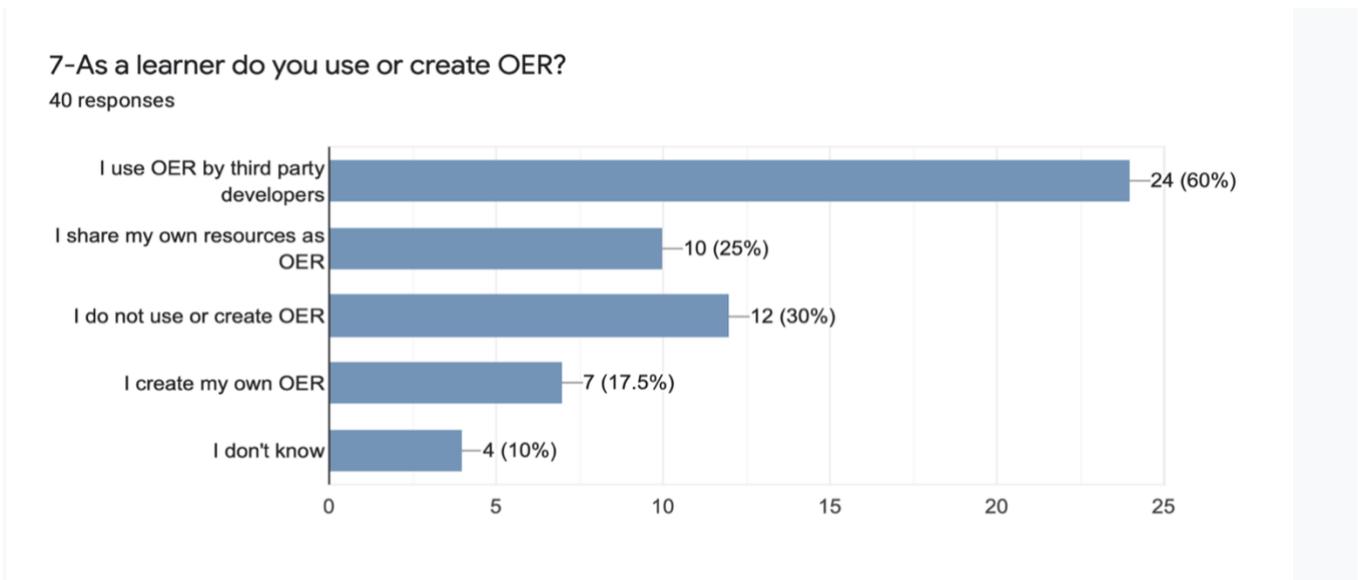


In this section, **(72.9%)** of participants agreed with the fact that reusing OER is a useful way of developing a new curriculum and **(20.8%)** are unsure and only **(6.3%)** responded “I don’t know”. This shows that OER has a major value for academics.

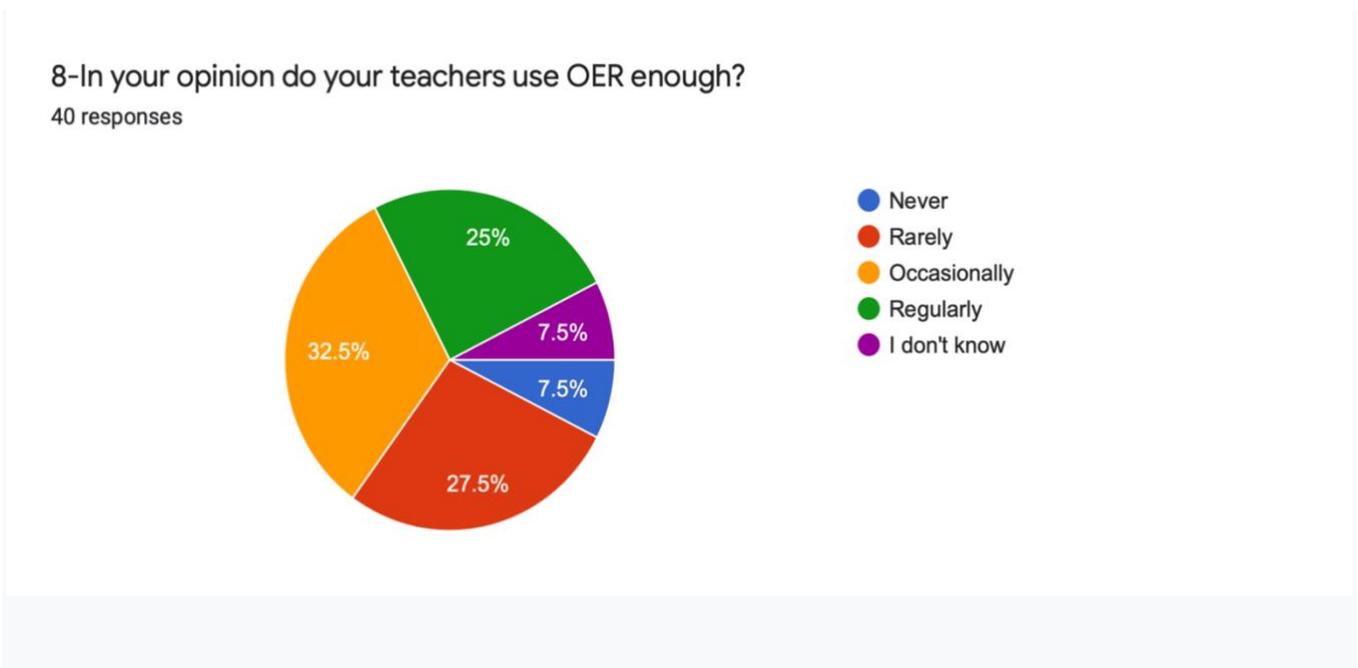
6- Reusing Open Educational Resources (OER) is a useful way of developing new curriculum?
48 responses



The following section addresses the question of how learners use OER. **(60%)** of learners responded that “I use OER by third-party developers”, this explains that learners will go the extra mile to find or use relevant OER. **(30 %)** responded, “I do not use or create OER”. Only **(25%)** are sharing their resources as OER and **(17.5%)** are creating their own OER, followed by **(10%)** “I don’t know”.



This section captures teachers’ feelings about the frequency in which OER is used. The highest percentage is **(32.5%)** for Occasionally followed by **(27.5%)** Rarely. Regularly have only **(25%)** this could be for many reasons that we will try to elaborate in the recommendations. Furthermore, both” Never and I don’t know” have the same **(7.5%)**.



To assess the adequacy of OER, the following section asks about the OER's suitability for teaching. Answers are based on different factors such as country of location, academic background, and school curriculum. Learners from a certain part of EU countries are accustomed to OER. Example: Learners from the UK will be familiar with Open University Learning Space, Udemy, etc. Therefore, are likely to turn to them when needing OER. As expected, Learner's choices gravitate around E-learning, Videos, and images.

9-Which OER would you find suitable for them to use in teaching?

19 responses

Recorded lectures and podcasts because you can learn while doing something else. It saves time!
Canvas Network, Elsevier (Open access journals), Coursera.

Online tutorials, digital learning objects, videos, open access journals.

Google Scholar

E-libraries (e.g. university of Nicosia, nbonline.gr)

I don't use OER.

Open books and open-licensed video to make their teaching more attractive and engaging

Open videos and more interactive OER content rather than heavy and many-page texts

Open course materials mean cost savings for students

Instructional videos

Instructional videos

Forms for the accreditation of foreign languages.

I don't mind

UK Open University Learning Space, Udemy

Learning modules

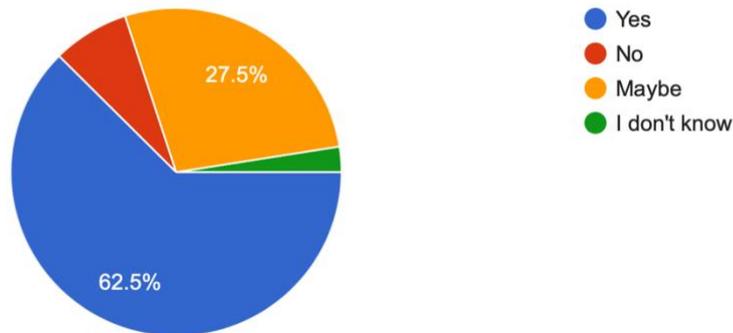
Coursera, T Levels, Udemy

Pretty much every OER available for my studies.

The following questions on the survey provide an insight on how well IT is being used to support OER in learning.

10-Do you feel you have sufficient IT skills to use OER in learning situation?

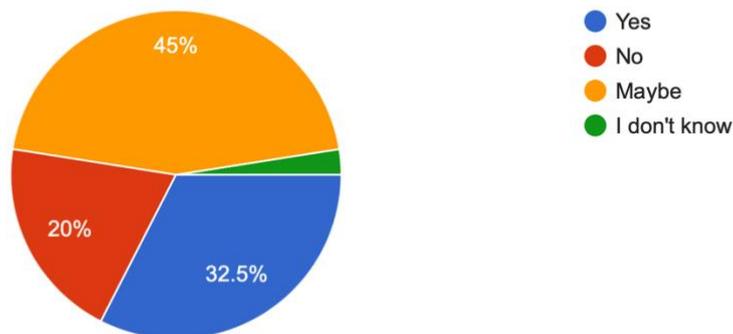
40 responses



(62.5%) answered “YES” for sufficient IT skills to use OER in a learning situation. This high percentage shows strong digital know-how of the participants. **(27.5%)** answered “MAYBE”. **(7.5%)** answered “NO” and **(2.5%)** “I don’t know”.

11-Do you feel you have sufficient IT skills to develop and share OER for learning purposes?

40 responses



(45%) answered ” MAYBE” for sufficient IT skills to develop and share OER for learning. This percentage highlights a strong IT skill mix with a lack of confidence and a training guide.

This research also attempted to understand likely factors that limit learners’ access to OER by investigating knowledge on usage rights and barriers in using OER.

12-Are you familiar with the licensing and usage rights information?

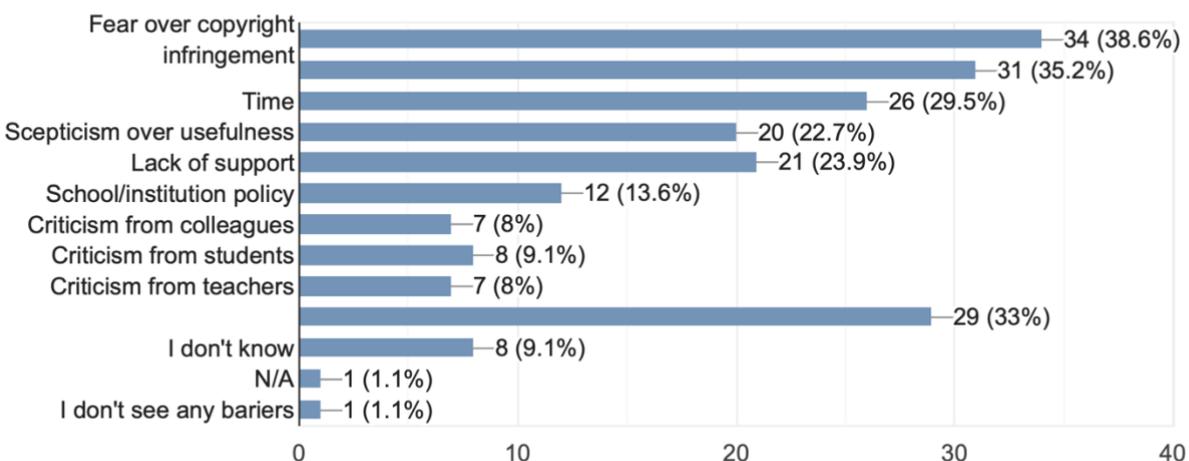
88 responses



(40.9%) responded, “I am aware of the licensing and usage rights information”. **(30.7%)** responded, “I find difficult to understand the licensing and usage rights information”. The lowest percentage is **(28.4%)** for “I am not aware of the licensing and usage rights information. Even though, **(40.9 %)** are aware of the usage rights we cannot overlook the **(59.1%)** other participants unaware or unsure of the licensing and usage right information.

13-What barriers do you face in publishing and using OER materials?

88 responses

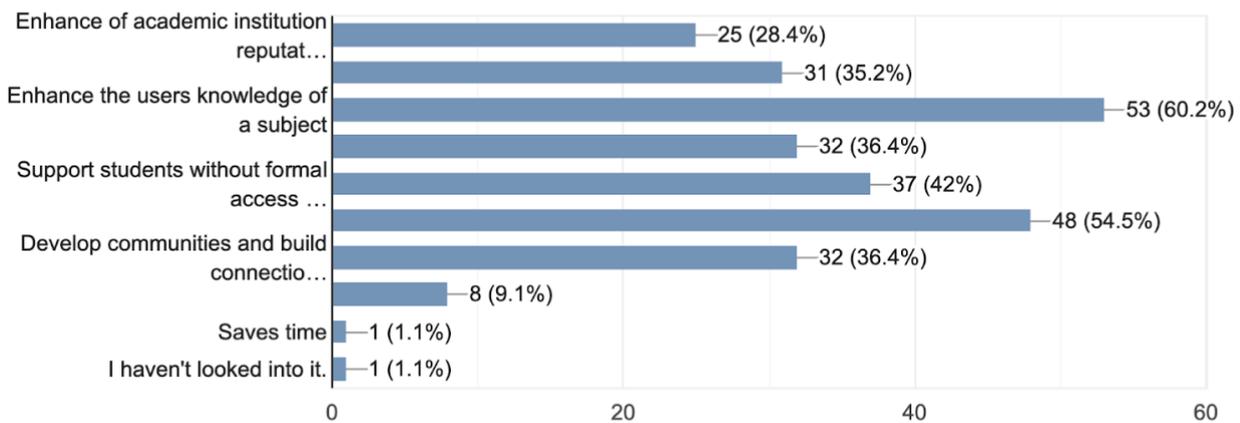


The most relevant barriers collected are: **(38.6 %)** fear over copyright infringement, **(35.2%)** ownership and legal barriers, **(33%)** relevancy of materials available, **(29.5%)** time, **(23.9%)** lack of support, **(22.7%)** scepticism over usefulness, **(13.6%)** school/ institution policy.

This section captures respondents’ intentions, benefits, and preferred format in publishing OER.

14-What benefits do you see in publishing and using OER materials?

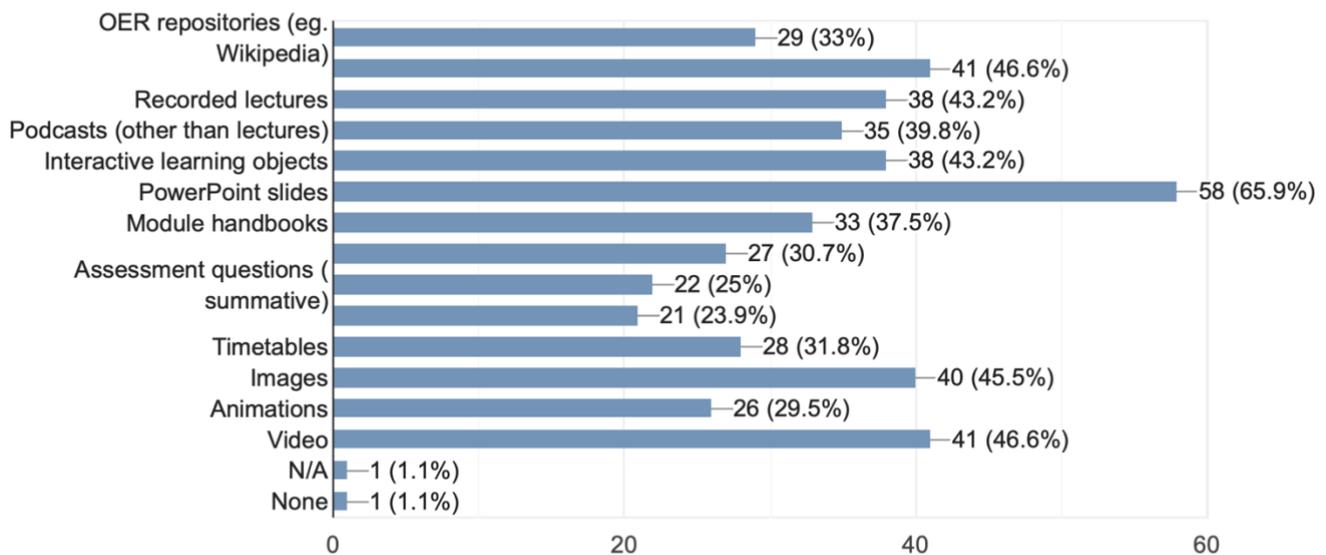
88 responses



The most relevant benefits collected are the following: **(60.2%)** Enhance the user's knowledge of a subject, **(54.5 %)** Share best practice, **(42 %)** Support students without formal access to HE, **(36.4 %)** Develop communities and build connections, **(36.4 %)** Enhance the users' knowledge of a course, **(35.2%)** Enhance personal reputation.

15-What types of OER would you be most willing to publish or use?

88 responses



Types of OER participants would be most willing to publish or use are the following: First, PowerPoint slides **(65.9 %)**, second Lectures Notes **(46.6%)** and Joint second Video **(46.6%)**, third images **(45.5 %)**, Fourth recorded lectures **(43.2%)** and joint fourth Interactive learning objects **(43.2%)**. Fifth Podcasts (other than lectures) **(39.8%)**.

To improve the application of OER, this section reports respondents' answers regarding their knowledge of OER sources and recommendations for better application of OER.

16-Please name some relevant OER sources for you (Teacher / Learner)?

55 responses

<https://www.federica.eu/> <https://wordwall.net/it> <http://www.indire.it/>
 teacher
 N/A
 Wikipedia
 Learning app
 UK Open University Learning Space, School zone, Udemy, Canvas Network
<https://www.salto-youth.net/tools/toolbox/> <https://www.oercommons.org/>
<https://drive.google.com/drive/folders/0B7BlfcMmDcOMcm5sR0daV0dKM3c>
<https://academicearth.org/>
<https://www.open.edu/openlearn/> <https://www.coursera.org/>
 videos, PowerPoint presentation
 Library Genesis, Wikipedia, Google Scholar
 W3schools, YouTube, Udemy.
 Google books
 google scholar
 Tutor2u Psych boost
 Timetables
 CC Search, Wikimedia Commons, Open Clip Art Library, Public Library of Science (PLOS) European, Public Library of Science (PLOS), Ideas Worth Spreading (TED), OER Commons.
 Khan Academy, College Open Textbooks, Siyavula, Jorum, Udemy.
 UK Open University Learning Space.
 n/a
 UK Open University Learning Space, Google Advanced Search
 I don't remember
 PowerPoint Presentations
 I only know the "OER Commons": <https://www.oercommons.org/>
 University Library,
 (www.library.unic.ac.cy, nbonline.gr, scholar.google.gr)
 PowerPoint
 Coursera, open courses.gr
 The Thesis Whisperer / Ted x /
 Streaming videos digital learning objects
 UK Open University Learning Space, OER Commons.
 I don't have any.
 The first that came to my mind is Coursera which has access to various collections of courses offered with the relevant material. I also use for my paperwork, canvas which has free pictures and you can make creative images on your own with many features and graphics
 Sci-hub
 Society for Effectual Action <https://www.effectuation.org/>
 Podcasts, learning videos on YouTube
 YouTube

Unsplashd (photos)

as a teacher, I find it relevant to use an approach to knowledge that always passes through ethics and the global and complex vision of reality

Deklaracja Kapsztadzka

Futurelearn.com

Open courseware, LEARNING MODULES, STREAMING VIDEO, ONLINE TUTORIALS

YouTube, school zone

I don't know

T levels, Udemy, UK Open University Learning Space, cc search

I don't know!

Accademia vivarium. YouTube. Wikipedia. treccani. zanichelli. alatin

17-If you (Teacher / Learner) are not currently using OER what might help do so soon?

43 responses

N/A

I don't know

N/A

I use OER so this question does not apply to me

yes

PowerPoint presentation

Receiving more information about good OER sources and their terms of use.

Promotion of OER among students.

Support from the hierarchy.

Cooperation between academic institutions.

n/a

I can't think now.

It would be beneficial for me to have more knowledge on technology and the computer field

I need both technical and legal support/guidance to understand how OER works.

Getting to know more things about privacy, licensing, copyright infringements.

a guide with information and steps on how to do so

Recommendations from peers

Awareness of them in general and also easy ability to evaluate their quality

I'm using

I will surely use it in the next future, it is simple and quick!

information support and price reduction of IT devices

Information support and free distribution of IT devices

I don't know

more time

to have the determination to work alone too and not wait for other colleagues

Więcej informacji na ten temat upublicznionych. Ta tematyka nie jest powszechnie znana.

If someone tells me how to do it

school policy

Promotion of OER by teachers and schools.

more time and tutor

18-Do you have any recommendations or comments that might be useful to this research?

36 responses

N/A

No

no

More OER with valid academic information is needed.

No

Very good initiative.

No.

Emphasize on presenting the content of the survey with an eye pleasant way to be easy to read the information and understand it!

OER's have significant benefits & can add extra value for students & teachers - my primary concern though is finding that balance between these benefits & value - against what some see as exploitation of (my) intellectual property for financial gain.

More information on licensing

I think that OER learning will be more popular in the future

Having as much material as possible

encourage teaching through online courses

More online courses

no, I haven't

nice

Not at this moment.

2.8 Recommendations

Based on our analysis of the findings from the 88 responses of the Online Survey conducted in five EU countries (Finland, Greece, Italy, Poland, and the United-Kingdom, we propose the following recommendations to ensure teachers and learners create or use Open Educational Resource (OER).

Advocacy

- Creating awareness of OER within VET
- Engaging with policymakers on the benefits of OER for the education system
- Advocating that reusing Open Educational Resources (OER) is a useful way of developing a new curriculum.

Policy

- Providing support to teachers, especially on IT skills and open licensing and learning design.
- Academic institutions to allocating time, rewards for creation and use of OER
- Massively promoting policy on legal permission for teachers and learners to share contents they created
- Creating an evidence-based cost-effective on the adoption of OER.

Practice

- Encouraging teachers to create OER with learners and vice versa
- Creating a sharing culture within academic institutions
- Encouraging teaching through online courses
- Enforcing a teacher and learner professional development program in OER. Program including licensing, usage rights information, and participatory pedagogy.

Our study has shown that the creation and sharing of OER can be a way to improve the education system from teaching to learning methodologies. The online survey has highlighted how an important tool OER could be for teachers. OER can save teachers a massive amount of time on resource development and enabling students to use academic resources at their convenience. From the comfort of their home or in the classroom. Advocating, for OER will help take full advantage of its benefits such as cost-effectiveness and interconnectivity.

CHAPTER 3: EPALE, OPEN EDUCATION EUROPA AND EU PLATFORMS

EU PLATFORMS TO SUPPORT OF OPEN EDUCATIONAL RESOURCES

At the European level, the EU Commission, in 2013, dedicated a special space to OER, through the Open Education Europa portal, as a virtual space for discussion on these issues, with the publication of articles, as well with moments of an online discussion to create a community that deals with OER but with the concept of open education.

The portal operated from 2013 to 2018. A selection of the material was incorporated into the Europe School Gateway website and is still accessible.

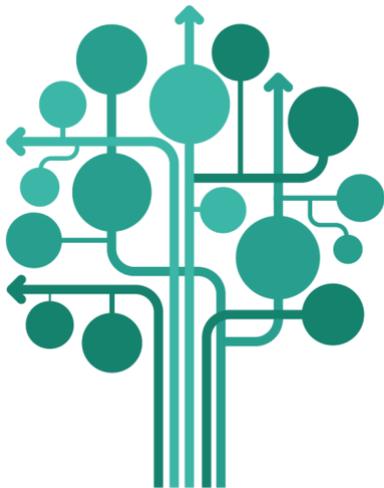
Currently, there are no platforms supported by European institutions, only dedicated to Open Educational Resources, but interesting resources can be found in other portals supported by the EU, targeted by the type of education:



- EPALE - Dedicated to the adult education sector
- EUROPE SCHOOL GATEWAY - Dedicated to the world of school, from childhood to higher education (ISCED 0- ISCED 3)
- YOUTH SALTO - Dedicated to young people and non-formal education opportunities aimed at them.

EPALE – Electronic Platform for Adult Learning in Europe

EPALE is the first European online platform entirely dedicated to the adult education sector. It



EPALE
Electronic Platform
for Adult Learning in Europe

is an initiative of the Directorate-General for Education and Culture (DG EAC) of the European Commission. Supervised by the Education, Audiovisual and Culture Executive Agency (EACEA), it is daily managed by a Central Support Service (CSS) and by the National Support Service

(NSS), which contribute to enrich the EPAL platform with specific contents.

Since 2014, the year of the official European launch, EPAL has pursued the goal of opening to Europe the national debate on issues related to educational pathways for adults. Strengthening the network collaboration and create new synergies within its community, the system offers a contact search tool.

The platform is mainly aimed to who has a professional role in the learning of adult learners (therefore it does not directly involve learners), but the registration is open to whoever's interested in learning about studies, educational practices, and more current reflections on a topic - adult education, in fact - of growing interest in the panorama of European strategies.

Numerous documents and studies carried out at European level, such as the Europe 2020 strategy and the European Agenda for Adult Education, underlining the lifelong learning and the development of skills are key elements for sustainable and inclusive growth and for responding to major issues of our time (economic crisis, demographic aging, the economic and social

strategy of the European Union, etc.). However, the Agenda highlights very significant gaps in adult learning, underlining how Europe's performance is lower than in other realities such as Asia and the United States: in our continent, one-fifth of adults show very low levels of literacy, and a quarter lacks effective skill in using digital technologies.

EPALE wants to contribute to improving European results for adults, facilitating debate, discussion, exchange of good practices and dialogue between sectors of the varied world of adult education, creating synergies, enhancing the use of Open Educational Resources, the facilitation of staff mobility and partnerships, stimulating innovation, knowledge of sector legislation, financing strategies, etc.

EPALE introduces some important innovations. Firstly, it combines two often separate and non-communicating areas such as vocational training and adult education in both formal and non-formal and informal fields. The choice of a multilingual platform with the possibility of registration always open underlines the desire to involve different actors and represent the many realities of the sector.



In the portal, in the Themes section, there are 5 macro-themes chosen at the European level to structure the discussion:

1. Support for pupils
2. Learning environments
3. Skills for life
4. Policies, strategies, and funding
5. Quality

The platform offers many very useful tools, including a calendar of events, a glossary of terms, a resource centre, and all the latest news on adult learning in Europe as well as a specific section dedicated to EU policy in the field of 'Adult Learning with in-depth information on the various countries.

The EPAL Resource Centre is a bank of materials that supports adult teachers and trainers to keep up to date on best practices and reference documents for adult learning.

This section contains case studies of innovative approaches to adult learning, reports, and policy documents, as well as articles from newspapers and magazines.

In this section, it will also find OER materials: freely available resources in the education sector, training and learning materials, tool kits, manuals, teaching tools that can be directly used or adapted as needed.

EPAL also represents design support: it offers the possibility to advertise conferences, courses, and seminars organized throughout Europe and therefore it is an excellent channel to promote the activities of your organization at a European level. The events included in the calendar are then disseminated through EPAL accounts on social media (Facebook, Twitter, LinkedIn, YouTube) to reach the highest number of people.

The platform is available at the web address: <https://epale.ec.europa.eu/it>

EUROPE SCHOOL GATEWAY

Presented in 23 European languages, the School Education Gateway is an online platform for teachers, school leaders, researchers, teacher educators, policymakers, and other professionals working in school education – including Early Childhood Education and Care (ECEC) and Vocational Education and Training (VET).

The School Education Gateway is free for all users and helps them to:



- **Stay informed** – with new content every week, including opinion pieces by experts, news articles, interviews, up-to-date publications, and examples of practices.
- **Find resources** – such as reports from recent research, teaching materials created in European projects and training courses, and the European Toolkit for Schools, with material on preventing early school leaving and a self-assessment tool to help you develop your school actions.
- **Develop themselves** – with the Teacher Academy, offering free online courses developed by our in-house experts, and webinars and teaching materials.
- **Get familiar with funding** – through the Erasmus+ Opportunities, comprising three practical tools (course catalog, mobility opportunities directory, and strategic partnership search) for schools to prepare their Erasmus+ applications.

The Platform is organized into 5 sections

- LATEST- Fresh insights into school education policy and practice in Europe
- VIEWPOINTS- Expert views and surveys on school education
- RESOURCES- Publications, tutorials, and teaching materials to stay informed and to enhance pedagogical practice.

- ERASMUS+ OPPORTUNITIES - Three tools and information for schools to prepare their Erasmus+ applications
- TEACHER ACADEMY online and on-site courses, webinars, and teaching materials.



In the resources section, there are many Open Educational Resources, even those merged from the Open Education Europa portal, which stopped working in 2018.

Registered users can contribute to increasing resources by publishing content.

Through the section "Suggest content" it is possible to fill in an online form to send suggestions and materials. The editorial

team reviews all submissions received and all submissions take part if their material has been chosen for publication.

The platform is available at the web address:

<https://www.schooleducationgateway.eu/it/pub/index.htm>

SALTO-YOUTH

SALTO-YOUTH is a network of seven Resource Centres working on European priority areas within the youth field.

As part of the European Commission's Training Strategy, SALTO-YOUTH provides non-formal learning resources for youth workers and youth leaders and organizes training and contact-making activities to support organizations and National Agencies (NAs) within the frame of the



European Commission's Erasmus+ Youth program, the European Solidarity Corps, and beyond.

On this website you'll find lots of tools:

- ❖ European Training Calendar is where you'll find trainings and seminars run by SALTO, European Solidarity Corps Resource Centre, Erasmus+ NAs, and NGOs in the youth field
- ❖ Toolbox for Training contains hundreds of tools and activity ideas for youth work
- ❖ Atlas Partner Finding puts you in touch with thousands of youth projects, so you can build strong partnerships and apply for Erasmus+
- ❖ Trainers Online for Youth is our directory of over 500 trainers, who can deliver your International training activities

The seven resource centres each focus on a specific topic or region. They are all based at a different Erasmus+ and European Solidarity Corps National Agency.

The resource centres are:

- 1) SALTO Inclusion & Diversity (Belgium-Flanders)
- 2) SALTO Participation & Information (Estonia)
- 3) SALTO Training and Cooperation (Germany)
- 4) SALTO Eastern Europe and Caucasus (Poland)
- 5) SALTO EuroMed (France)
- 6) SALTO South-East Europe (Slovenia)
- 7) European Solidarity Corps Resource Centre (Austria)

In addition to their specific priorities, the SALTO-YOUTH Resource Centres have many joint tasks such as developing training resources, sending regular newsletters about European YOUTH priorities, providing a European Training Calendar, making experienced European youth trainers accessible, and evaluating the training activities.

The platform is divided in three sections:

- About SALTO
- Resource Centres
- Tools

In the selection “Tools “are available Hundreds of useful tools for learning - for youth work and training activities.

Created to help youth's trainers, teachers, and educators to find and share useful training Tools, the *Toolbox* for training is an online catalo that can be browsed through freely or even contribute to.

An important and useful notice is given to the users: tools alone have no influence. It is a users' task to adapt them to their objectives, context, and target group, and " their skills to turn them into something powerful..."

The Toolbox wants to be a learning community for trainers, youth workers, and teachers to share, debate, and increase the quality of educational methods in their daily work.



The Toolbox contains 2198 tools listed, organized according to the following categories:

- ⇒ Simulation Exercise
- ⇒ Energiser
- ⇒ Manual
- ⇒ Group Division
- ⇒ Ice-breaker
- ⇒ Group Building Activity

The platform is available at the web address: <https://www.salto-youth.net/>

CHAPTER 4: OPEN LESSON PLANS, COURSES, AND ACTIVITIES- How to plan a course using OER

Using open education practices (OEP) in teaching and learning promotes the culture of sharing. It leads to the increased availability of open educational resources (OER) and to teaching and learning practices that are learner-centred and based on peer learning. OEP increase transparency and visibility. It refers to specific teaching and learning practices that not only use OER but are also open to change, adaptations, and collaboration. Open educational practices are also associated with the formal recognition of open learning certificates and credentials. OEP supports the use and reuse of open educational resources, curricula, recorded lectures, and lesson plans, and the sharing of teaching, learning experiences, and strategies.

4.1. Lesson design

The Cape Town Open Education Declaration (CTOED, 2008), a founding document of the OER movement, suggests that open education has the potential to “empower educators to benefit from the best ideas of their colleagues” and to adopt “new approaches to assessment, accreditation, and collaborative learning.” OER is frequently conceptualized as agents of change⁴, predominantly educational content (e.g. OER, Open courseware).

As professional practice and expectations change, individual educators must continue to learn and expand their practice to keep up with the demand. A change is required not only in what teachers do but also in how they think and conceptualize elements within their practice⁵. Educators must simultaneously adopt the dual roles of teachers and learners, enabling them to learn from and contribute to their professional practice. When integrating OER, educators need to build understanding and develop an awareness of what OER is and how they can be used.

⁴ Anderson, 2006; Banzato, 2012; Ehlers & Conole, 2010

⁵ Tynjälä, 2013

To reach higher levels of use, educators must recognize how OER can address needs, reflect on what OER reuse means and how it manifests in their practice. Engaging with OER can promote change in educators' practice, including changing attitudes toward curriculum and content⁶, increasing their reflection on current practice⁷, and fostering new, more collaborative methods of working⁸.

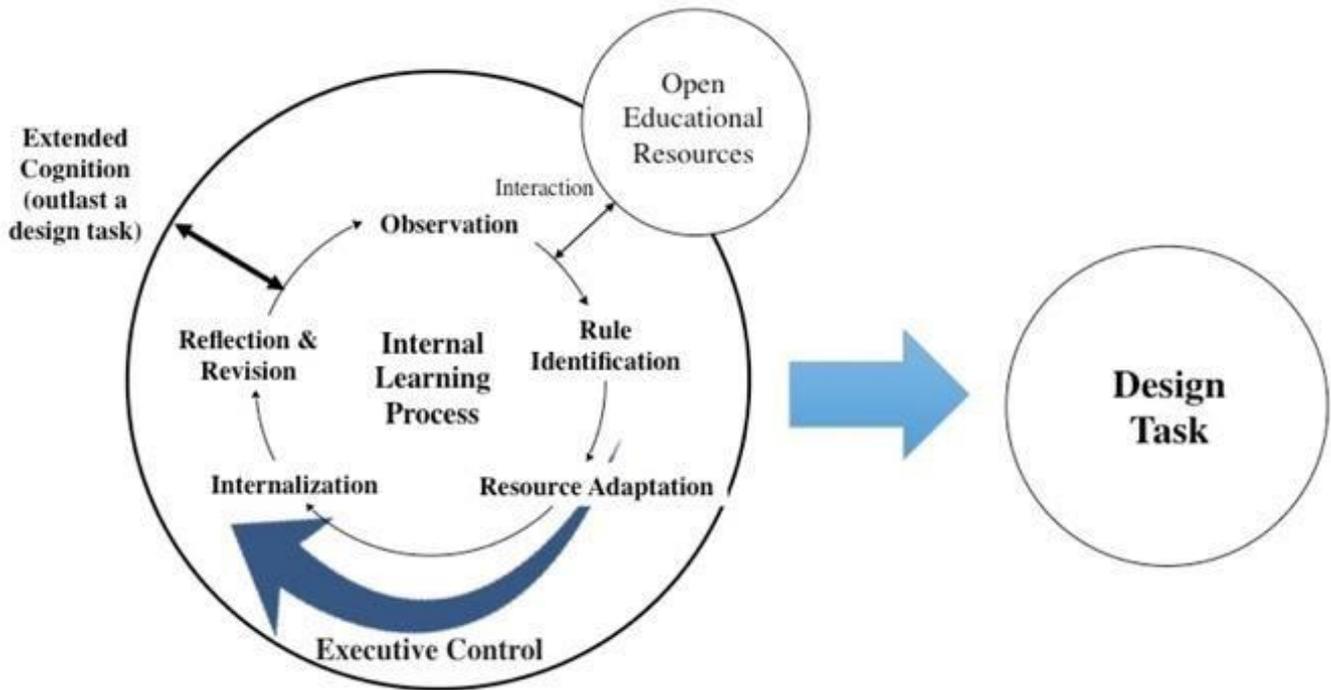
As teachers experience meaningful learning while discovering an intellectual property represented in OER, they can imagine how they would adapt existing resources for their students. While structured OER (e.g., textbooks, complete courses) are often used with little modification, unstructured OER (e.g., video clips, pictures) offer great flexibility for adaptive use and fits the nature of lesson design that involve creative processes, such as planning lessons and creating digital teaching materials.

Teachers first observe examples, then increasingly internalize the representations through the adaptation of OER to finally extend cognition and outlast the design task. As the lesson design process progresses, teachers gradually have executive control over their lesson designs and become independent of the inherent design or context of the original resources and focus on their teaching contexts.

⁶ Beetham, Falconer, McGill, & Littlejohn, 2012; Caswell, Henson, Jensen, & Wiley, 2008

⁷ Beetham et al, 2012

⁸ Beetham et al, 2012; Lane & McAndrew, 2010



A new framework for integrating OER into lesson design

Based on the framework, four principles and guidelines for the implementation of an OER-based design activity can be followed (see Table below) and are adapted from Angeli's (2005) model. The following 6 steps are suggested: choosing a topic, observing teaching strategies, planning class activities, developing materials, evaluation, and revision.

Step	Lesson design phase	Principle & Guideline
Observation/Rule Identification	<ul style="list-style-type: none"> Choosing topic Observing teaching strategies 	a Have teacher's explorer OER that take different approaches to the same topics <ul style="list-style-type: none"> Encourage teachers to find OER that represent both worked (e.g., lesson plans) and modelling examples (e.g., classroom practice videos) Encourage teachers to explorer OER that show a variety of pedagogical methods (e.g., collaborative learning, project-based learning)

		<ul style="list-style-type: none"> Engage teachers in comparing identified OER to identify the critical features
<p>Resource Adaptation/Executive Control/Internalization</p>	<ul style="list-style-type: none"> Planning class activities Developing materials 	<p>Facilitate in-depth cognitive processing</p> <ul style="list-style-type: none"> Have teachers come up with ideas to improve identified OER Have teachers revise and remix OER to their lesson design contexts Encourage teachers not to replicate inherent designs of original resources for their lesson design <p>Allow teachers to have increasing autonomy over their lesson designs</p> <ul style="list-style-type: none"> Help teachers shift from observing structured OER (e.g. complete textbooks) to manipulating unstructured OER (e.g., micro-content, learning objects) Gradually remove guidance for OER use and lesson design
<p>Reflection/Revision</p>	<ul style="list-style-type: none"> Evaluation Revision 	<p>Encourage peer interactions to improve lesson design outcomes</p> <ul style="list-style-type: none"> Have teachers review and comment on their peers' design outcomes Have teachers reflect on and revise their lesson designs based on feedback from their peers

Principle 1: Have Teachers Explorer OER That Take Fresh Approaches to the Same Topic

Being exposed to different pedagogical approaches allows teachers to observe the consequences of implementing the approaches in classrooms, which is considered a form of observational learning. The exploratory observation contributes to identifying what activities teachers want to implement to teach the chosen topic effectively. Comparing multiple examples helps learners discover the critical aspects of a problem and gain deep insights into the content⁹. It is also important to use a variety of examples to gain different skills¹⁰.

Principle 2: Facilitate In-Depth Cognitive Processing

At the planning phase, teachers come up with ideas on how to transform representations they observed from OER into concrete activities that can be implemented. OER are created in use, therefore they cannot be "simply transposed to a new setting"¹¹. The developing materials phase is for teachers to deconstruct and recontextualize content represented in the OER¹², a required phase because of their inherent designs¹³ and to adapt the resources to their pedagogical patterns. Design activities lead to an in-depth understanding of the content to be taught¹⁴.

Principle 3: Allow Teachers to Have Increasing Autonomy Over Their Lesson Designs

Koehler and Mishra (2005) emphasize that participants of design activities should be the creators of knowledge rather than the consumers of it. Design involves learners' critical decisions in the process of creation as they undertake several iterative processes (e.g. exploring resources, revising solutions, reflecting on outcomes) to get satisfactory design outcomes¹⁵.

⁹ Große & Renkl, 2006

¹⁰ Renkl, 2014

¹¹ Ponti, 2014, p. 155

¹² Littlejohn & Hood, 2017

¹³ Conole, McAndrew, & Dimitriadis, 2010; Ponti, 2014

¹⁴ Conole et al., 2010

¹⁵ Doppelt & Schunn, 2008

Principle 4: Encourage Peer Interactions to Improve Lesson Design Outcomes

In designing a lesson plan, the reflection phase is necessary to allow teachers to develop a pedagogical rationale. The revision phase leads to the refinement of lesson design and facilitates the design-based process¹⁶. Peer coaching, as a typical form of peer model-based learning, has been widely acknowledged as a method used to support teacher professional development¹⁷.

4.2. Tips for teachers

Pedagogical practices can be changed to embed openness at all levels. Lesson plans, assessment templates, and learning design can be shared with other educators. Lessons' recording can also be shared through video or podcasts, to make the subject visible and accessible to all. Course tasks can be creatively designed collaboratively. Peer reviewing can facilitate evaluating the quality of an OER in the learning object repository (LOR). Various quality instruments can be used, e.g. through MERLOT, ARIADNE & OER Commons, like rankings, commenting, social tags, or the concept of peer production¹⁸, and making recommendations in the community. The lecturers using OEP should also act as an ambassador for their institution to promote open education policies, such as learning pathways design advice, open tutoring, open educational resources, assessment, MOOCs, open online courses, recognition of prior learning, and accreditation support.

The lecturer should be confident in using a wide range of digital technologies to enhance the potential for creating and sharing teaching practices and OER.

Another aspect to consider when planning a course online or conducting an existing course online is its scalability. The lecturer must consider that if the number of participants/students is higher, the assessment method will have to be reconsidered. In this case, peer assessment and peer learning would be prioritized. Besides, if students are in the classroom setting learning

¹⁶ Angeli, 2005

¹⁷ Ovens, 2004

¹⁸ Auvinen 2009

through group work, the teacher will have to design alternatives in a digital context. Also at the design phase, the lecturer will have to decide to either conduct the entire course online or to use a hybrid method involving partly direct teaching and partly online teaching.

4.3. Examples of curriculum-sharing websites and lesson plans

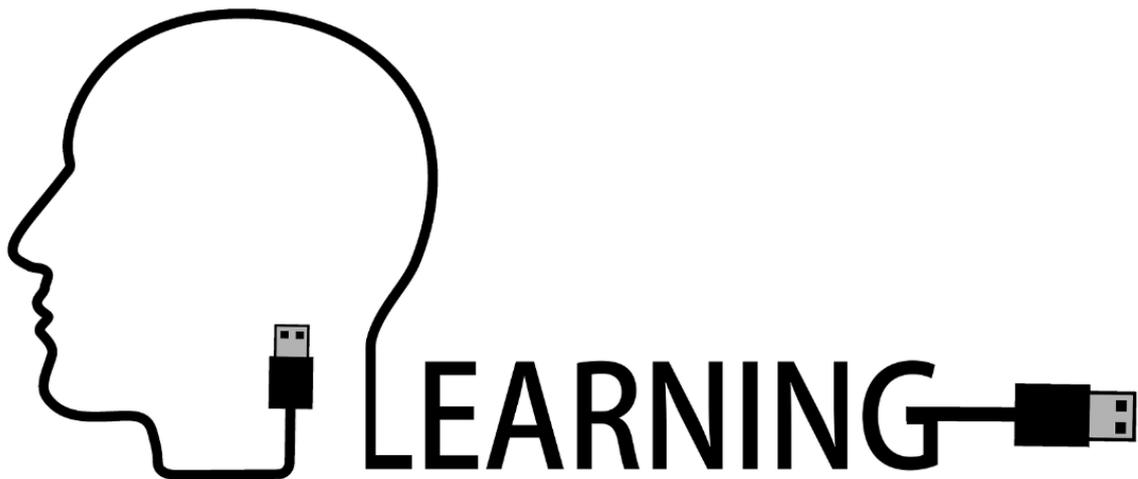
Curriculum-sharing websites are used to collect materials and best practices. Teachers can contribute their work, collaborate, rate others' contributions after using them:

- Learn Zillion is like the Khan Academy of Common Core, with thousands of lessons. Started by a school in Washington, D.C., as a repository for screencast lessons by their best teachers.
- PBS Learning Media is a free service that brings together digital content from trusted organizations and public broadcasters, including videos, games, audio clips, photos, and lesson plans.

Shmoop is relatively focused on test preparation, they offer study guides, lesson plans, and sample quizzes, written by Ph.D. students.

CHAPTER 5: OER IMPLEMENTATION

OER-Open Educational Resources provide VET trainers and teachers with an instant low-budget and easily accessible solution, which they can take advantage of, during online training and activities¹⁹. Being 100% free for the mass, Open Educational Resources are readily available to support VET providers any kind of online courses and activity as well as while preparing on and off-line trainings. These Resources which are training material found online, help corporate learners expand their knowledge and deepen their understanding of multiple topics and themes. ,On the other hand, OER equips teachers, trainers, and other VET professionals with the essential tools and material to enrich their courses and trainings, saving both time and money.



Source: <https://pixabay.com/el/illustrations/%CE%BC%CE%AC%CE%B8%CE%B5%CF%84%CE%B5-%CF%83%CF%87%CE%BF%CE%BB%CE%B5%CE%AF%CE%BF-usb-%CE%B2%CF%8D%CF%83%CE%BC%CE%B1-2099928/>

¹⁹ <https://elearningindustry.com/tips-use-open-educational-resources-online-training>

5.1.OER OPTIONS

OER are using online repositories and libraries, open textbooks, library eBooks, however, besides using only those, OER can be also implemented by curating a variety of open access, digital resources²⁰. For example, TED talks, other video content, websites, learning objects, and many more can be also counted as part of the Open Educational Resources collection.



Source: <https://pixabay.com/el/vectors/%CF%83%CE%B5-%CE%B1%CF%80%CE%B5%CF%85%CE%B8%CE%B5%CE%AF%CE%B1%CF%82-%CF%83%CF%8D%CE%BD%CE%B4%CE%B5%CF%83%CE%B7-%CE%B4%CE%AC%CF%83%CE%BA%CE%B1%CE%BB%CE%BF%CF%82-528465/>

Online Repositories²¹:

Open (access) repositories can be defined as a collection of full-text documents available in online databases on the Internet that can be accessed freely and instantly. ²²They can be either institutional or subject repositories. The first isis digital collections of the research outputs

²⁰ <https://library.raritanval.edu/opened/examples>

²¹ <https://canberra.libquides.com/c.php?q=599341&p=4148816>

²² <https://www.sciencedirect.com/topics/computer-science/open-access-repository>

created within a research institution. Institutional repositories are managed by research institutions to house their own author's works and their creation is significantly promoted scholarly communication. Although most institutional repositories aim to make research outputs openly available, they usually contain a combination of:

- Open Access (OA) full text
- Embargoed full text
- Metadata only records

Subject repositories are digital collections of the research outputs within particular subject areas or disciplines, developed specifically to meet the needs of these communities. The research publication in most subject repositories are distributed globally and searchable on the Web:

Examples:

[CORE](#) (Connecting Repositories) (Open University): CORE provides searchable access to millions of research papers from repositories and Open Access journals. Useful for locating theses and dissertations. (Best viewed in Firefox or Chrome browsers)

[JURN](#) A unique search-engine dedicated to indexing free and open access journals and theses in the arts and humanities, science, biomedical, business, and ecology-related topics.

[OAister](#) Catalogue of millions of records representing open access digital resources which can help in open access collections worldwide.

Textbooks:



Adopt an Open Textbook

Numerous open textbooks already exist for a variety of subject areas. These textbooks can be found by searching the repositories for open textbooks linked from the Home page of this guide. To adopt an open textbook, an instructor simply has to decide which textbook to use and provide access to the textbook for students. Two of the easiest options for providing access are:

- Link to the open textbook on the site where you found it.

- Download the textbook from the site where you found it, then upload the file to your course in the college's CMS

Link to an Open Textbook Library textbook: <http://open.lib.umn.edu/principlesmanagement/>

Open textbooks may be available in the following file types, depending on the textbook:

- **PDF** (the most common file type available)
- Word doc
- **EPUB** - standard eBook file type for many eBook readers and mobile devices; can be read on Nook and Kobo, and on desktops using Adobe Digital Editions, EPUB File Reader, and other programs
- **MOBI** - file type used by Amazon Kindle
- **WXR** - Pressbooks file type (based on the WordPress authoring platform)

Remix Textbooks:

If a complete open textbook does not exist to meet your course needs, you may be able to create an open textbook relatively easily by re-mixing chapters from two or more open textbooks. Because an open textbook can be modified without copyright restrictions, you are free to pick and choose what parts of an open textbook you want to use and combine them with other open textbook chapters or resources in whatever manner you see fit.

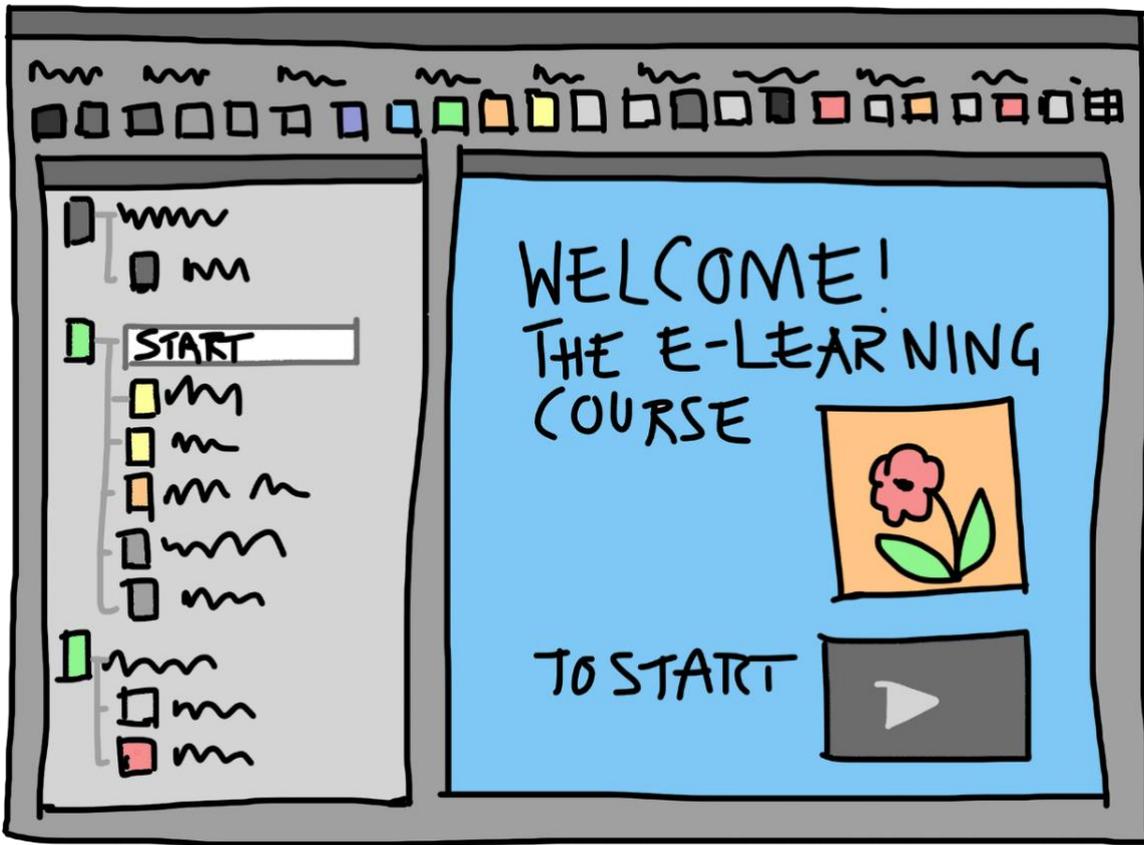
The Business Law II open textbook used by RVCC instructors is an example of a remixed textbook. Rather than progressing linearly through an existing open textbook, the faculty member selected the chapters from available open textbooks that are most relevant to the content taught in the class. The individual chapters are then added as Materials to the Timeline in WebStudy according to when the readings are assigned throughout the semester. The Library also created a guide with the chapter files so that students would have access to the chapters without logging in to WebStudy.

Curate Open Materials:

These are open courses from Universities or Colleges that can be created entirely in Google docs through the curation of an open textbook, YouTube videos, and an online math homework site (MyOpenMath.com).

Example:

[MyOpenMath](#) is designed for mathematics, providing delivery of homework, quizzes, and tests with rich mathematical content. Students can receive immediate feedback on algorithmically generated questions with numerical or algebraic expression answers.



Source: <https://pixabay.com/el/illustrations/%CF%80%CE%B1%CF%81%CE%BF%CF%85%CF%83%CE%AF%CE%B1%CF%83%CE%B7-qui-e-learning-%CF%86%CF%85%CF%83%CE%B9%CE%BA%CE%AC-341444/>

Curate Free Materials:

At times, all of the resources you would like to assign for a class may not be "open" in the purest sense. In other words, they might not be completely free of copyright restrictions or cost. Examples of resources that can be free for your students but are not "open" in the strictest sense include:

- Content from proprietary library databases

Instructors can link to the content in databases using a link that requires the student to authenticate ("login") to the database. These links can be provided to faculty by librarians, or are sometimes available on the articles themselves as "permalinks."

- eBooks available through the library

The library subscribes to eBook collections and many allow for unlimited, simultaneous users. Like a research database, the library pays the cost of the eBook to make it freely available for students using their institutional login. Faculty should check with a librarian if there is a limit on the number of simultaneous users to avoid students being "bounced" from a resource because the limit has been met.

- Copyrighted material on websites

Although freely available, a lot of online articles are copyrighted by the author or publisher. You can provide links to copyrighted material online for your students to access.

5.2. OER DEVELOPMENT

This starter kit has been created to provide instructors with an introduction to the use and creation of open educational resources (OER). The text is broken into five sections: *Getting Started*, *Copyright*, *Finding OER*, *Teaching with OER*, and *Creating OER*. Although some chapters contain more advanced content, the starter kit is primarily intended for users who are entirely new to Open Education.

You can download the OER Starter Kit [here!](#)

OER in Canvas²³: There are several course shells within Canvas that have been designed around open textbooks or other OER. These can be found in Canvas Commons. But *what is Canvas Commons?*

Commons is a learning object repository that enables educators to find, import, and share resources. A digital library full of educational content, Commons allows Canvas users to share learning resources with other users as well as import learning resources into a Canvas course.

To enable Commons in your Canvas instance, please contact your Customer Success Manager. To access Commons, you need to have an email address associated with your Canvas account.

²³ <https://community.canvaslms.com/docs/DOC-16744-what-is-canvas-commons>

Tips:

- Commons is available in all Free for Teacher (FFT) accounts. Free for Teacher users are limited to finding, importing, and sharing public resources.
- Commons includes similar functionality with Blueprint Courses. To learn more about Blueprint Courses, see the [Blueprint Courses and Canvas Commons Comparison PDF](#).

What can I do with Commons?

- Create a personal learning object repository
- Build a course from scratch with relevant materials shared by other Canvas users
- Create a name for yourself and your institution as a subject expert

5.3. OER IMPLEMENTATION

The first thing you should do is to make sure that you know how OER will be used. You should be able to envision what the ideal OER system would look like, including the expected impact on your beneficiaries²⁴.

The next step is to determine what resources you will need to deploy the OER to your target group, including key personnel, digital and technical infrastructure, instructional materials, software, etc. All these compose the biggest issue that you need to deal with, the quality of your OER. Then, you should go with drawing a specific timeline during which you are planning to accomplish what you want.

You will need to identify the stakeholders you need and define their role and responsibilities in the creation and implementation of the OER and then, to develop a reliable and strong communication strategy, identifying the groups you need to communicate and their needs.

Finally, plan now how you will determine if you have been successful in the creation, distribution, and implementation of your OER.

²⁴ <https://blog.tcea.org/oer-implementation/>

Tips on how to use OER

1. **Verify the usage rights** Most Open Educational Resources have a Creative Commons license, rendering them, in general terms, free to use. However, there are different variations of this license, as well as different stipulations. Some Creative Commons online resources require attribution. For example, for some resources, you must include a link or credit if you decide to use the online training content in your corporate eLearning materials, while others come with no copyright strings attached.

General rule: You generally won't have to provide any attributions for online training content that is not modified or reused. For example, if you simply include the link to the resource in your online training course.

2. **Crosscheck the Quality Assurance Test before using them** The online resources may be free. But is it worth adding them to your online training course? Every Open Educational Resource should first pass the Quality Assurance test to ensure that it's factual, and aligns with your learning objectives. Does it contain statistics that are supported by reliable sources? Does it feature high-quality writing and graphics? Will it clarify concepts or cause cognitive overload? The online resource must meet all the requirements to earn a spot in your online training program. It's wise to have your Subject Matter Expert examine every Open Educational Resource before you consider it for your online training course.

3. **Create an Open Educational Resource Repository** The secret to Open Educational Resource success is making them convenient. Employees should be able to login into the system and have immediate access to valuable online training resources. For this reason, it's wise to create an Open Educational Resource repository, such as a master list that features hyperlinks and categories. As an example, one section of the repository may be for compliance procedures, while another provides "moment of need" online resources for work-related tasks or skill-building tools. This also gives employees the ability to create their own personalized online training paths. For instance, a member of your sales staff can pick-and-choose the Open Educational Resources they need to improve their negotiation and communication skills.

4. **Use Open Educational Resources for inspiration** Open Educational Resources are also ideal for eLearning professionals who develop online training courses. You have the opportunity to use them as inspiration for your next corporate eLearning project, or to brush up on the subject matter. For example, you need to create a task-based scenario that provides a real-world online

training experience. You can research the steps and skills involved in the task with the help of Open Educational Resources, especially if these online resources were developed by Subject Matter Experts and specialists in the field. This saves you the time and expense of outsourcing the work, as you have a wealth of knowledge at your disposal. Take it a step further by offering your eLearning team a list of helpful Open Educational Resources for your upcoming online training project.

5. Repurpose Resources to create comprehensive courses If the Creative Commons license does specify that you can modify the online resource, repurpose the online training content to suit your needs. For example, only one aspect of the Open Educational Resource aligns with your goals and objectives. As such, you can pick-and-choose which elements you'd like to include, and discard the rest. This is ideal for organizations on a tight corporate eLearning budget or with limited online training experience. Simply find resources with unrestricted Creative Commons licenses, then use a rapid eLearning authoring tool to develop effective online training materials.

6. Encourage Self-Guided Exploration One of the most beneficial online training activities is self-guided exploration. VET learners have the opportunity to build their knowledge and skills at their own pace. Likewise, they can focus on their goals and needs, which allows them to fill personal performance gaps. To facilitate this process, provide your learners with targeted Open Educational Resources and then let them set the schedule. This is yet another reason why Open Educational Resource repositories are valuable online training tools. Employees have constant and quite unlimited access to instructional aids that can help them upskill and improve workplace productivity, even if there aren't any formal online training sessions scheduled. You can even incorporate Open Educational Resource discovery "missions" in the form of online group collaboration activities. Divide your learners into teams, and invite them to compile a list of topic-centered Open Educational Resources. Then they can share it with their peers, who can also benefit from the newly expanded online resource library.

7. Host Open Educational Resource seminars and workshops The two most common challenges associated with Open Educational Resources in online training is lack of awareness and tech know-how. Many VET learners and workers may not even know that there are Open Educational Resources available that can help them improve their workplace or learning performance. Even if they do, they may still lack the necessary tech experience to find and access these online training resources. For these reasons, you should consider a live Open Educational Resource workshop or webinar. Take the opportunity to inform them about the

benefits of Open Educational Resources and how to use them. Offer walkthroughs and online tutorials that show them how to access the materials and find the information they need. Above all else, offer them ongoing support so that they can overcome common obstacles.

Open Educational Resources can cut your online training costs and enhance the benefits for your VET learners and employees. However, you must use them wisely to achieve the desired outcome. Otherwise, you may end up confusing corporate learners instead of simplifying complex concepts.

These 7 tips to use Open Educational Resources can help you to effectively improve your online training ROI (Return On Investment), thus ensure that your target groups' development programs provide quality learning experiences that drive impact and increase profitability²⁵.

²⁵ https://wikieducator.org/Otago_Polytechnic/Implementation_plan#Dimensions_or_aspects_our_OER_implementation_plan_should_cover.3F

CHAPTER 6: PEDAGOGICS AND PRACTICALITY- Practical steps to follow to make an OER

6.1. Concepts

Open Education

Open education is education without academic admission requirements and is typically offered online. Open education broadens access to the learning and training traditionally offered through formal education systems.

Open Educational Resources

Open educational resources (OER) are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing as well as for research purposes.

Creative Commons

Creative Commons (CC) is a non-profit organization that works to increase the amount of creativity. It provides free, easy-to-use legal tools (licenses) that make it easy to change their copyright terms from the default of “all rights reserved” to “some rights reserved.”

Public Domain

Public Domain means the author gives up their right to the copyright of the code, and it can be used in any way. In many countries it is legally not possible to give up copyright, so using public domain code poses problems in some professional contexts.

Royalty-free

Royalty-free refers to the right to use copyright material or intellectual property without the need to pay royalties or license fees. It may require a paid plan on a platform to be entitled to download royalty-free material, and there may be specific limitations on how to use such material²⁶.

What is a license?

In an academic context, a license is a permission you get from the copyright owner of the work you want to use. A license grants permissions, but sometimes it states restrictions as well. It specifies what can and cannot be done with work.

Copyright = (a form of) intellectual ownership

License = permission or consent from the copyright owner to use the copyrighted work

Licensing = obtaining permission or consent from the copyright owner to use the copyrighted work²⁷.

What is an open license?

An OPEN license is a type of license that grants permission to access, re-use, and redistribute a work for free, with few or no restrictions. With open licenses, creators still maintain the rights to their copyrighted work -- they are not "giving" away from their work or their copyright.

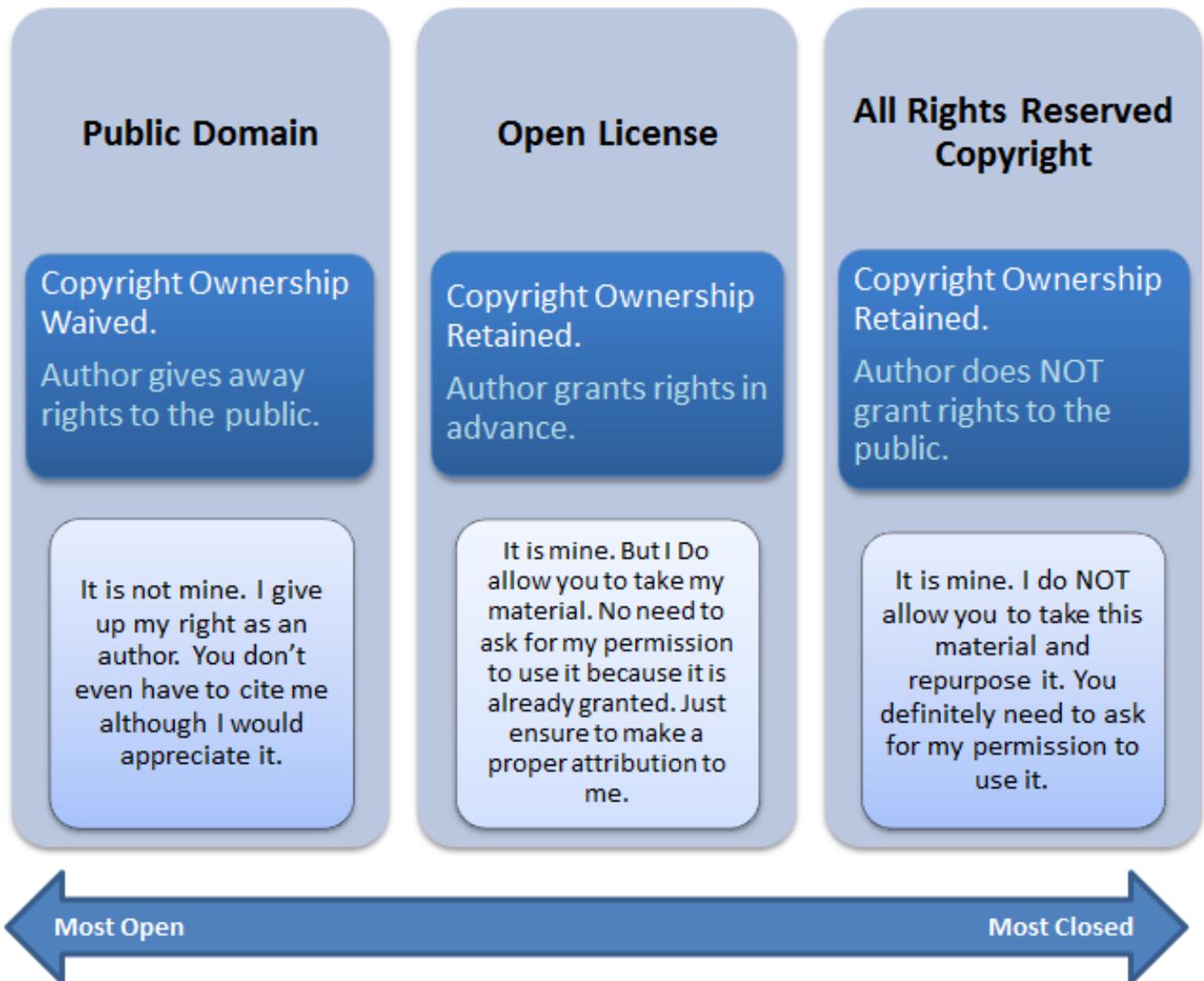
Bottom line? Think of an "open license" as "free + permissions." If you see an open license, that's how you know it's OER! See below for common types of open licenses²⁸.

²⁶ <https://en.wikipedia.org/>

²⁶ <https://tacomacc.libguides.com/oer/licenses>

²⁷ <https://tacomacc.libguides.com/oer/licenses>

6.2. Public domain vs. open license vs. all rights reserved copyright



Public domain	Open Licence	All Rights Reserved
Copyright Ownership Waived.	Copyright Ownership Retained	Copyright Ownership Retained
The author gives rights to the public.	Author grants rights in advance.	,The author does NOT grant rights to the public.
It is not mine. I give up my right as an author. You don't even have to	It is mine but I do allow you to take my material. No need to ask for my permission to use it because it is	It is mine. I do not allow you to take this material and repurpose it. You need

cite me although I would appreciate it.	already granted. Just ensure to make proper attribution to me.	to ask for my permission to use it.
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Source:

<https://tacomacc.libguides.com/oer/licenses>

The Creative Commons License Options

Source

<https://creativecommons.org/about/cclicenses/>

There are six different license types, listed from most to least permissive here:

⇒  **CC BY** This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator. The license allows for commercial use.

Icon	Symbol	Description
	BY	Credit must be given to the creator

⇒  **CC BY-SA**: This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator. The license allows for commercial use. If you remix, adapt or build upon the material, you must license the modified material under identical terms.

Icon	Symbol	Description
	BY	Credit must be given to the creator
	SA	Adaptations must be shared under the same terms

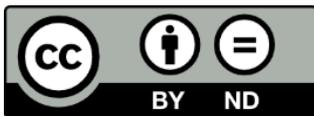
⇒  **CC BY-NC**: This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for non-commercial purposes only, and only so long as attribution is given to the creator.

Icon	Symbol	Description
	BY	Credit must be given to the creator
	NC	Only non-commercial uses of the work are permitted



⇒ **CC BY-NC-SA**: This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for non-commercial purposes only, and only so long as attribution is given to the creator. If you remix, adapt or build upon the material, you must license.

Icon	Symbol	Description
	BY	Credit must be given to the creator
	NC	Only non-commercial uses of the work are permitted
	SA	Adaptations must be shared under the same terms



⇒ **CC BY-ND**: This license allows reusers to copy and distribute the material in any medium or format in unadapted form only, and only so long as attribution is given to the creator. The license allows for commercial use.

Icon	Symbol	Description
	BY	Credit must be given to the creator
	ND	No derivatives or adaptations of the work are permitted



⇒ **CC BY-NC-ND:** This license allows reusers to copy and distribute the material in any medium or format in unadapted form only, for non-commercial purposes, and only so long as attribution is given to the creator.

Icon	Symbol	Description
	BY	Credit must be given to the creator
	NC	Only non-commercial uses of the work are permitted
	ND	No derivatives or adaptations of the work are permitted

The Creative Commons Public Domain Dedication



CC0 (aka CC Zero) is a public dedication tool, which allows creators to give up their copyright and put their works into the worldwide public domain. CC0 allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, with no conditions.

6.3. What is OER?

Open educational resources (OER) have the advantage of being “free”, which means that anyone can access, adapt and distribute them.

The first point is important to learners, while all the above aspects are highly relevant to teachers. Teachers need permission to distribute material, such as the use of a worksheet in a course, and also need permission to adapt the material, for example, to suit the abilities of participants.

However, [OER](#) is more than just worksheets. They refer to all kinds of resources, regardless of the type and the medium, which can be used for educational purposes (text, images, music, videos, games, ideas, instructions, digital or analog techniques) and which are openly licensed.

The most practical and global system is called Creative Commons. The Creative Commons (CC) copyright licenses and tools let the author express what rights and obligations there are to

use their content. Every CC license help creators retain copyright while allowing others to copy, distribute, and make some uses of their work — at least non-commercially. Every CC license also ensures licensors get the credit for their work they deserve.

The licenses used in this context are the [Creative Commons licences](#), and open educational resources are labeled as CC Zero, CC BY or CC BY-SA (dark green in the adjacent graph).

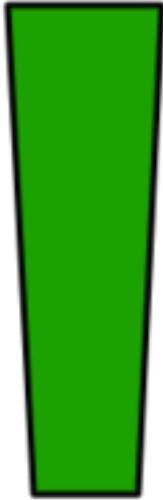
This is important, because as a rule resources without this label are not OER.

Source

<https://epale.ec.europa.eu/en/blog/offene-bildungsmaterialien-alphabetisierung-und-grundbildung>

author: Dr. Magdalena Spaude

MOST OPEN



LEAST OPEN



CC0



BY



BY



SA



BY



ND



BY



NC



BY



NC



SA



BY



NC



ND

Source image:

<https://images.app.goo.gl/CBqANtKMEpB1Sym6>

<https://images.app.goo.gl/hQeiNhm1oTVQXqta8>

6.4. What do the individual licenses mean?

Even if it is possible to look at resources such as worksheets, images, and videos online, teachers are not permitted to simply go ahead and use them. If they are not labeled with a CC license, they are subject to copyright law, which means the creator of the material needs to grant permission for use. The permitted manner of use also needs to be specified. Can a text-only be copied, or can it be edited, can pictures be inserted? If teacher fails to obtain the relevant permission, they are violating copyright law and subject to prosecution. Claiming that no copyright or statement such as “All rights reserved” was visible is not a valid defense.

Not all CC licenses are open. The restrictions NC (no commercial use allowed) and ND (no derivative works allowed) limit re-use to such a degree that it no longer makes sense to speak of an open license. If you as a teacher are sure that none of your professional activities can be classified as commercial, and if you have no wish to make changes to the resources, then you are also permitted to use licensed resources which include the ND and NC restrictions. However, due to a lack of legal clarity, the NC clause is considered problematic.

Source

<https://epale.ec.europa.eu/en/blog/offene-bildungsmaterialien-alphabetisierung-und-grundbildung>

author: *Dr. Magdalena Spaude*

6.5. Which type of license is right for my OER?

The Creative Commons License terms

License icon	License Option	License terms
	CC BY	Attribution Name the source
	CC BY-SA	Attribution; Share-Alike - Remix, use, even commercially - Name the source and license your work under the same license
	CC BY-NC	Attribution; Non-Commercial - Use, even commercially but do not remix or alter - Name the source
	CC BY-NC-SA	Attribution; Non-Commercial; Share-Alike - Remix, use, but not commercially - Name the source and license your work under the same license
	CC BY-NC-ND	Attribution; Non-Commercial; Non-Derivative - Use, but not commercially, and do not remix or alter - Name the source

Source

<https://creativecommons.org/about/ccllicenses/>

Platforms, projects, and individual teachers who wish to make their education resources available would be recommended to release them under a CC license. This offers legal security to others who re-use the material, as it indicates whether and in what ways additional use is permitted. A well-meant remark on a homepage that “some” use of the material is possible may indicate an intention but leaves many questions open.

Those who donate resources also need to consider what type of license should be chosen. The problematic issue of the NC (non-commercial) restriction has already been mentioned. It is important to note that “commercial” does not mean the abuse of a license. Teachers who work at private language schools work for a commercial institution. Teachers at adult education centers are often unsure whether their work is “commercial” or not, especially as adult education centers exist as different types of the legal entity. Is it right that private schools that provide basic education or literacy courses are disadvantaged by the NC licence? On the other hand, adult education centres might avoid resources with an NC licence due to uncertainty. And what if a freelance teacher works in a “commercial context” in the morning and offers the same content on a “non-commercial” basis in the afternoon?

The ND restriction means that teachers are not allowed to adapt the material in any way. This can also be problematic. To deal with the heterogeneity of participants in any learning environment, the ability to differentiate within that environment is important. One way in which this might be done is by adapting learning resources to match participants’ abilities. ND licenses restrict the ability to do this.

Source

<https://epale.ec.europa.eu/en/blog/offene-bildungsmaterialien-alphabetisierung-und-grundbildung>

author: *Dr. Magdalena Spaude*

Summary Video

Open Licensing <https://youtu.be/BlhJUJ9DC4A>

Creative Commons and copyright <https://youtu.be/T8XWWSfXoM>

6.6. How to use OER in practice?

Five steps to master OER:

1. Find OER
2. Check the licensing
3. Verify the quality of the material
4. Use and remix
5. Share your work as OER

Source:

<http://iv4j.eu/wp-content/uploads/IO6-Open-Educational-Resources-EN-PRINT.pdf>

6.6.1. Find OER

Where can you find OER?

Unfortunately, there is not a central platform.

Here you will find some practical tips.

OER is most often shared under a Creative Commons (CC) license. This means they are generally free to use. That information is attached to the resource page, so that search engines can filter your search and show only open content.

1. Search in Creative Commons

<https://search.creativecommons.org/search-help>

<https://opensource.creativecommons.org/ccsearch-browser-extension/>

How to find Creative Commons videos on Youtube and images or music elsewhere!

<https://youtu.be/RoK-wHJPf3w>

2. Google Search and Wikimedia, Public Doman and CC images search

Searching for OER images on Google: <https://youtu.be/IS5gfZG0b8o>

Searching Google for OER: <https://youtu.be/MII3jJDySIM>

pixabay.com

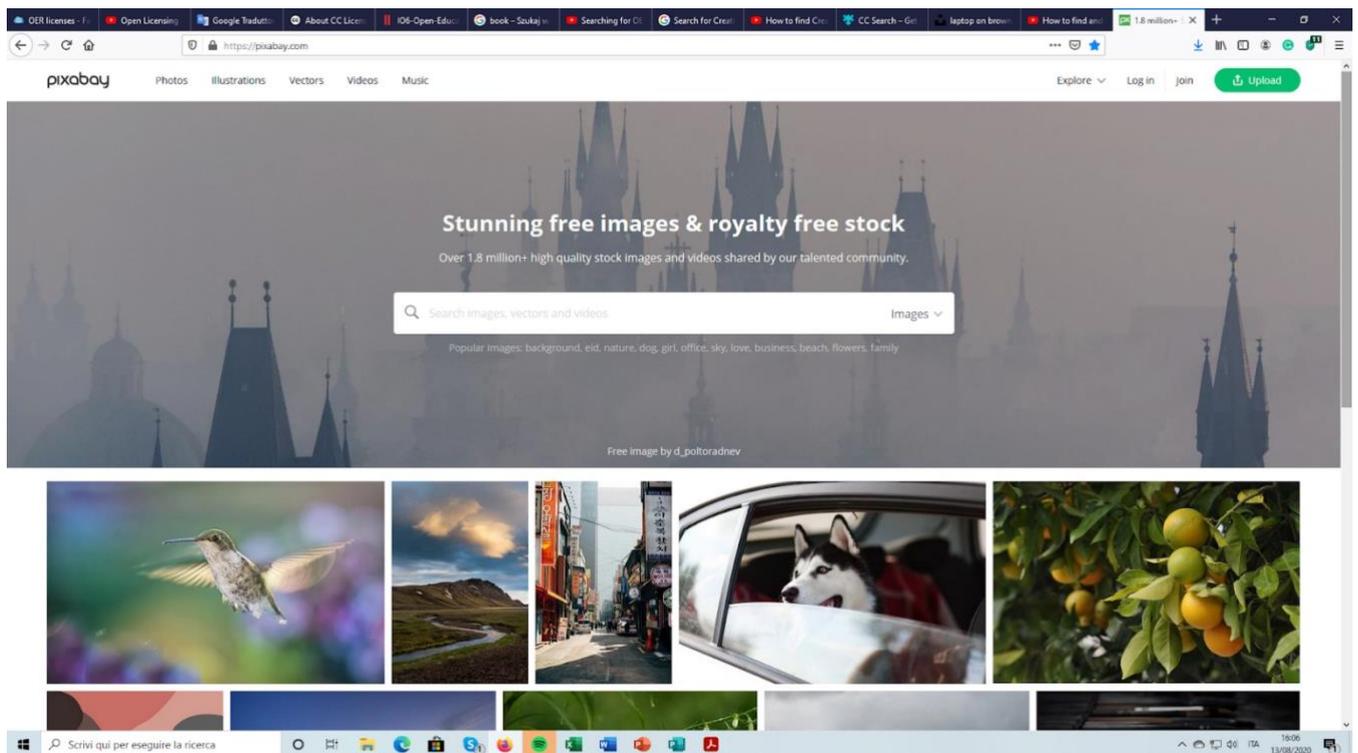
unsplash.com

How to find and download public domain images on Pixabay:

<https://youtu.be/Pts8uSfWbns>

Source:

<http://iv4j.eu/wp-content/uploads/IO6-Open-Educational-Resources-EN-PRINT.pdf>



6.6.2. Check the licensing

More examples on finding the licensing on various platforms will be found on videos above, section

- What is a license?
- Find OER

6.6.3. Verify the quality of the material

Verify the source and content.

6.6.4. Use and remix

More examples on finding the licensing on various platforms will be found on videos above, section 1- Find OER

Using Creative Commons

One goal of Creative Commons is to increase the amount of openly licensed creativity in “the commons” — the body of work freely available for legal use, sharing, repurposing, and remixing. Through the use of CC licenses, millions of people around the world have made their photos, videos, writing, music, and other creative content available for any member of the public to use.

Attributing Sources

You can use CC-licensed materials as long as you follow the license conditions. One condition of all CC licenses is attribution. Here is an example of an ideal attribution of a CC-licensed image by Flickr user Lukas Schlagenhauf:



“[Furggelen afterglow](#)” by [Lukas Schlagenhauf](#) is licensed under [CC BY-ND 2.0](#).

This is an ideal attribution because it includes the:

- Title: “[Furggelen afterglow](#)”
- Author: “[Lukas Schlagenhauf](#)”—with a link to their profile page
- Source: “[Furggelen afterglow](#)”—with a link to the original photo on Flickr
- License: “[CC BY-ND 2.0](#)”—with a link to the license deed

How you attribute authors of the CC works will depend on whether you modify the content, if you create a derivative if there are multiple sources, etc.

Best practices for attribution

https://wiki.creativecommons.org/wiki/Best_practices_for_attribution More examples on finding the licensing on various platforms will be found on videos above, section1 - Find OER

6.6.5. Share your work

- Use Creative Commons (CC) tools to help share your work. CC free, easy-to-use copyright licenses provide [a simple, standardized way to give your permission to share and use your creative work](#)— on conditions of your choice. You can adopt one of our licenses by [sharing on a platform](#) or choosing a license below.
- [Choose a license](#)
This chooser helps you determine which Creative Commons License is right for you in a few easy steps. If you are new to Creative Commons, you may also want to read [Licensing Considerations](#) before you [get started](#).



- Share your work on a Creative Commons platform
Creative Commons works with platforms like Wikipedia, Flickr, and Vimeo to provide their users with the option of licensing works with CC licenses. Through these platforms, over 1.4 billion works have been shared and counting!



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FMA

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SKILLS COMMONS
open for learning

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eupeana
think culture

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Tribe of Noise

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jamendo

•

MIT OPEN COURSEWARE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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PLOS

- What CC licenses do
Our licenses enable collaboration, growth, and generosity in a variety of media.
Source: <https://creativecommons.org>



The partnership:



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