
THE OPENGAME COMPETENCIES FRAMEWORK: AN ATTEMPT TO MAP OPEN EDUCATION ATTITUDES, KNOWLEDGE AND SKILLS

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Abstract

The paper introduces the competence framework produced by the OpenGame project, that includes the attitudes, knowledge and skills that educators need to master in order to work with Open Educational Practices (OEP). With this outcome, the OpenGame research team aims at closing the gap between the expanded interest of researchers and practitioners towards a holistic vision of open education and the absence of a shared competence framework that can cover both the creation and/or use of Open Educational resources (OER) and the broader realm of OEP. Starting from literature review complemented with the analysis of 24 open teaching practices, 8 competences have been defined, related to both OER and open pedagogies. The competences relating to OER are: use open licences; search for OER; create, revise, and remix OER; and share OER. The competences relating to open pedagogy are: design open educational experiences; guide students to learn in the open; teach with OER; and implement open assessment. The framework details the knowledge and skills that correspond to each competence and can serve both as a starting point to build educators' capacities to work with open approaches and as a reflexion tool to better understand what it means to be an Open Educator in the 21st century.

Keywords: Open education, OER, Open Educational Resources, OEP, Open Educational Practices, Open Pedagogy, Educators' competences, Higher education.

Introduction

The concept of Open Educational Practices (OEP), defined as “practices which support the (re)use and production of Open Educational Resources through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning paths” (Ehlers, 2011; p.3), has been gaining interest in the open education community (Bali et al., 2020), complementing OER as another fundamental pillar of openness in education (Havemann, 2020). OEP are potential enablers of quality, access and effectiveness within higher education (Wiley & Hilton, 2018), as recently recognised by the UNESCO in its Recommendation on OER (UNESCO, 2019). The number of universities that are working to mainstream the adoption of OEP across their educational offerings (Allen & Seaman, 2017) is increasing, and so are the capacity-building activities aimed to equip educators with the needed competences to work through open approaches (Nascimbeni et al., 2018). Nevertheless, what competences should be added to those already mastered by educators in order to upskill them into effective Open Educators is still an open question, and openness as an educator feature is a rather emerging area of research within open education research.

Methodology

In order to close this gap, the OpenGame project consortium has been working to develop an Open Education competencies framework, mainly targeted at university educators but easily adaptable and applicable also to other sectors. Desk research was conducted to obtain evidence of professional competence requirements of educators in open teaching situations, aiming to identify the competencies emerging from existing Open Education courses, handbooks and guidelines for educators. The outputs of the first phase were categorised into eight fields of requirements, which we call “competence areas”, one on OER and one on open pedagogies.

A mixed desk and field research phase was then conducted to identify and analyse relevant open teaching practices, which resulted in the identification of the following 24 cases:

- Practice 1: Use open textbooks as teaching resources: the WikitoLearn example;
- Practice 2: Use a MOOC in the classroom;
- Practice 3: Implement “Open Flipped Classroom” teaching;
- Practice 4: Integrate course content with an OER slides playlist;
- Practice 5: Transform your course into a MOOC: the AMMIL methodology;
- Practice 6: Create an OER-based module for teaching foreign languages;
- Practice 7: Switch from a commercial textbook to an open textbook;
- Practice 8: Transform your MOOC into an OER;

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- Practice 9: Use open video tutorials to foster explorative learning;
- Practice 10. Co-produce OER through teachers' content clubs;
- Practice 11: Share innovative teaching practices through an online repository;
- Practice 12: Produce OER playlists with the help of Artificial Intelligence;
- Practice 13: Co-design your syllabus with your students;
- Practice 14: Use OER to support socialisation of perspective students;
- Practice 15: Use OER for personalised and inclusive pedagogy: the path→in approach;
- Practice 16: Edit Wikipedia in the Classroom;
- Practice 17: Make your course digital with the help of your students;
- Practice 18: Use Open Data as teaching resources: a case from social sciences;
- Practice 19: Assess students' work by sharing it publicly;
- Practice 20: Implement OER-based renewable assignments;
- Practice 21: Engage Students with Professional Communities of Practice;
- Practice 22: Collaboratively created online publications by students;
- Practice 23: Foster students collaboration through online dialogue;
- Practice 24: Use social media to build an open and collaborative learning environment.

A detailed description of these practices can be found in the Handbook produced by the OpenGame project (García-Holgado et al., 2020). For each practice we have analysed the competencies needed by the educator to engage in that specific teaching approach, either by discussing these with the educators implementing these practices, when possible, or through desk research. In order to confirm the components of the competences identified in the practice patterns analysis in terms of attitudes, knowledge and skills, we organised an online focus group with a number of open education experts. This work resulted in a framework that aims to be intelligible to both educators and practitioners in charge of building openness capacity within higher education.

The OpenGame competences framework

The resulting framework is presented on Table 1. Importantly, the prerequisite of digital literacy must be kept into account. The reason for this is that, in order to effectively develop OEP competences and engage in the associated OEP, it is necessary to already have, or develop, a base level of digital competence, defined as the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society (Redecker & Punie, 2017).

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Table 1: The OpenGame competences framework for open educational practices.

A. Attitude			
Be ready to openly share one's work, to use the knowledge created by others, in order to improve access, participation, and quality of teaching and learning			
Area	Competence	B. Knowledge	C. Skills
1. OER	1. Use open licenses	Understand the (comparative) advantages of using open licences and know the existing types of open licences	1.1. Apply an open license to teaching resources 1.2. Recognise the requirements and restrictions of a licence, and know how to determine whether a resource has a licence and of what sort
	2. Search for OER	Know OER repositories and identify those that are the most suited to open needs	2.1. Find OER that are relevant for own teaching 2.2. Assess quality and usability of existing OER in order to use them
	3. Create, revise and remix OER	Know the different options for adaptation of an OER (translation, illustration, accessibility, contextualization, etc.)	3.1. Create an OER, taking into account the specificities of licences as well as its potential for reuse (format, language, granularity) 3.2. Revise an OER, taking into account the specificities of licences 3.3. Create an OER composed of various OERs
	4. Share OER	Know OER repositories, how to publish an OER, how to share an OER	4.1. Identify relevant OER repositories and publish a resource 4.2. Share a resource through social media and other means
2. Open pedagogies	5. Design open educational experiences	Know how to share and/or work collaboratively with others in open communities, how to facilitate student engagement in open learning experiences	5.1 Design engaging open educational experiences
	6. Guide students to learn in the open	Know about connected and network learning strategies, Be aware of the issues connected to online privacy and personal data management	6.1. Support students to learn through social networks, online communities etc. 6.2. Provide guidance to students about online privacy and personal data management
	7. Teach with OER	Know how to search for, create, remix, and share OER, and how to facilitate and guide others in their engagement with OER	7.1. Support students in searching for and using OER (either collaboratively or individually) 7.2. Support students in producing OER (either collaboratively or individually)
	8. Implement open assessment	Know the comparative advantages of open assessment and be aware of existing open assessment methods and tools	8.1. Deploy OER within an assessment 8.2. Guide students in doing their work in the public 8.3. Guide students in producing OER for formative or summative assessment

How to build openness capacity among educators

The OpenGame consortium recognizes that helping teacher developing an openness capacity is a complex task, and that academics need to start from their teaching practices in order to find ways in which they can share and collaborate openly, through a mindset shift (Inamorato dos Santos, 2019): a true change in the teaching and learning culture. Also, we note that openness is strongly connected with personal attitudes and preferences, and therefore generalist one-fits-all solutions should be avoided. On the other hand, as a fundamentally cultural transformation process, it requires time, appropriate pedagogical and technical support, as well as care for the educators own personal professional development pace.

Still, some guidelines can be drawn from the literature and best practices (Bali et al., 2020; Burgos, 2020) that can potentially increase the adoption of OEP within a university by improving faculty's capacities

- Creation of an Enabling Environment. Universities can play a critical role in supporting their teaching staff in the creation of open learning experiences, both through ongoing opportunities for professional development and by supporting in different ways the use of OEP and OER. What is important is the continuity of this effort, that should aim at creating an openness enabling environment, including clear guidelines on copyright and intellectual property rights (IPR), ICT support,

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financial and non-financial incentives for educators that embark in open projects, etc.

- **Support Gradual Adoption.** Educators typically discover the benefits of openness starting from one aspect (often the use of OER) and then they move to explore other openness domains. University decision makers in charge of teaching innovation should consider that the adoption of open teaching practices, similarly to the one of general digital practices, needs to be supported gradually by letting time and space for experimentation and by making sure that different capacity building paths can be activated depending on the starting level of educators.
- **Support Community Building.** Typically, educators start exploring open approaches from a recommendation by a trusted colleague or because they see this being done within reliable communities of practice. These close collaboration circles seem to be the necessary step to move towards open approaches: collaboration is an integral part of OEP and of OER, therefore the existence of communities that can support and maintain these collaborations is key.
- **Support Grassroots Experimentation.** In order to foster ownership of open practices among educators, institutional open education initiatives should build on the individual initiatives of educators: this would help open education sustainability beyond the necessarily limited funding of institutional projects.

Conclusions: How The OpenGame Framework can inspire the opening-up of Higher Education

The Battle for Open (Weller, 2014) is a far-reaching ongoing process across the Higher Education sector for close to two decades. In recent years though open education has been a strong component of a wider movement promoting Open Science, extending the principles of openness to the whole research cycle (Burgos, 2020). This more recent concept has emerged from the convergence of pre-existent trends in higher education such as open learning and OER, open source, open access, open publication, open data, open peer review, open innovation, and open licensing. Other relevant components were added to the concept as well, such as scientific social networking and citizen science (Fecher et al., 2015).

Governments in Europe and elsewhere are promoting openness in science based on the social principle that education and research supported by public funding should not only be available for all, but should also stimulate everyone's participation (European Commission, 2016). An open knowledge ecosystem is thus being built with important implications on how the higher education, research and innovation landscape organizes and operates (European Commission, 2018; Burgelmann et al., 2019).

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From an HEI's perspective, embracing openness is therefore a necessity which implies a significant and broad change in the organizational culture, as well as in the practices and internal procedures. Starting by institutional governance, policies and strategic planning, and reaching such areas as the technological infrastructure, teaching and learning practices, faculty support and professional development (Castaño-Munoz et al., 2016). In order to be successful, it is recommended that a holistic and bottom-up approach should be adopted (Inamorato dos Santos et al., 2016).

The OpenGame framework represents an important contribution to trigger the complex and interconnected internal changes and adjustments needed for widespread implementation of OEP in HEIs. Although it focuses on teacher's capacity building it does so from a holistic perspective. The approach followed not only leads educators to understand the principles and values of open education, access and licensing, but also enables them to create and transform educational resources, design quality innovative learning experiences, teach and support students in open and personalised learning environments, and assess learning outcomes in new more engaging open formats. Another important feature of the OpenGame framework is that it is based on a broad and diverse selection of best practices which can be easily related to every teacher's own context and experience. Moreover, this was designed as an open framework and therefore it can be adapted and completed by the experiences collected and shared by the open practitioners which use it.

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