

Chapter 10

Analyzing the Level of Inclusion of Digital Educational Objects in Eskola 2.0

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ABSTRACT

The Basque Government has published two calls to create digital educational objects for the programme called Eskola 2.0. After having provided schools with technological equipment, these calls aim to increase the use of learning technology in the classroom. More than 300 didactic sequences have been developed, which vary greatly in visual design, content structure, organization, and pedagogical aspects. Even though accessibility is one of the quality criteria, the reality is that they are hardly accessible and inclusive. DeustoTech Learning research group has carried out a survey of the educational objects approved in these calls up to November 2011. The authors evaluated pedagogical and technological aspects to find out how inclusive they are. In this chapter, they provide the results of the survey and propose a set of guidelines for designing more accessible and inclusive objects in the future.

INTRODUCTION

In July 2009, the Council of Ministers of the Spanish Government promoted a programme entitled Escuela 2.0 (Moncloa, 2009) which invested over 100 million Euros in equipping

400,000 students and 20,000 teachers with laptops, digitalizing 14,400 classrooms with Wi-Fi connection, digital whiteboards and other technology aimed at enhancing learning. This programme was established in the 2009-2010 academic year, starting with 5th –year primary school students, and each year it covers one new academic level.

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In the Basque Country competences on education are transferred from the central Ministry of Education to the Basque Government Department of Education, who endorsed this programme and called it Eskola 2.0

Many changes have taken place in a very short period of time: computers in the classroom, Internet connection, multimedia and audiovisual content at hand, changes in pedagogical models, competence-based learning, training teachers in Information and Communication Technologies (ICTs), etc. The present academic year, 2011-2012, is the third in which the Eskola 2.0 programme is being carried out. There are already three years of students with their own notebook to work with in class, but there are still many challenges for all participants in the educational process (teachers, institutions, schools, parents, students...)

Schools have been provided with technological infrastructure, but a key aspect is having quality educational content to enhance learning with the use of technology. This is the aim of these calls and the result has been more than 300 educational

sequences in core subjects of the Basque curriculum. Content producers received a few guidelines, so each has applied their own pedagogical and technological design criteria and the results have been quite varied.

In this chapter we present an evaluation of Digital Educational Objects uploaded to *Agrega* (*AgregaGV* 2012), the website where the Basque government shares all the content under its/a Creative Common license when it approves pedagogical and technical evaluation.

We analyze the accessibility and adaptability of this content for students and we assess the relation between the previously mentioned variables and the level of accessibility. This analysis will conclude with a set of guidelines for the design of inclusive educational content. Furthermore, we will provide content creators with a proposal on how to improve their material without the need of a total redesign. It is not the same to create educational content from scratch, with the proper guidelines to make it inclusive, as improving existing material and making it more adaptable.

Figure 1. Information of the DEO provided by *Agrega* search engine

The screenshot shows the Agregas search engine interface. At the top, there is a navigation bar with links: [Acerca de Agregas](#), [Comunidad](#), [Accesibilidad](#), [Preguntas frecuentes](#), [Mapa del portal](#), and [Contacto](#). There are also flags for different languages and a search bar with a 'Buscar' button. Below the search bar, there is a dropdown menu for 'Idioma del Contenido' and a 'Buscar' button. The main content area displays the details of a digital educational object (DEO) titled 'Tecnología interactiva - Diseña y construye una estructura'. The object is described as a tool for learning about structures and their components. The interface includes a 'Valoración' section, a 'Comentarios' section, and a 'Datos básicos' section. The 'Datos básicos' section contains the following information:

Formato:	Tamaño:	28.69 MB	
Idioma:	castellano	Ámbito:	universal
Licencias:	creative commons: reconocimiento - no comercial - compartir igual	Destinatarios:	alumno, docente

The 'Tipo de recursos' section lists various types of resources: actividad de discusión, animación, autoevaluación, caso contextualizado, ejercicio o problema cerrado, escenario real o virtual de aprendizaje, experimento, gráfico, herramienta de apoyo a procesos/procedimientos, herramienta de gestión de aprendizaje/trabajo individual/cooperativo/colaborativo, juego didáctico, mapa conceptual, presentación multimedia, proyecto.

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