kids4offshore –

An interactive Learning Platform for Pupils

Kids4offshore is a web-based interactive learning platform for pupils that was developed by the POWER partners:
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University of Applied Science, Bremen, Germany
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INTRODUCTION

With the utilisation of wind energy the North Sea member states break new ground towards a future independent from fuel resources and with low carbon dioxide emissions. Within the last decades the contribution of wind energy has increased to one-tenth of the overall energy consumption in the North Sea region. And its potentials are not yet fully exploited.

Considering the enormous wind potential at sea, wind energy has the best future growth prospects, among the sources of renewable energy. Right now, several wind farms are running successfully near shore and further huge wind farms will be established offshore.

The fast extension of offshore wind energy makes a better public information strategy essential. Especially, the education of young people plays an important role in order to attract pupils for this new development but also to sensitise them for associated assets and drawbacks. With developing the interactive and web-based learning platform kids4offshore we made the first important move. Kids4offshore not only imparts knowledge to pupils in the classroom but will also integrate knowledge that was and is gathered by pupils, teachers and universities in example projects.

1. General Description

Kids4offshore is an interactive learning platform for offshore wind energy (OWE) featuring material created both by experts and pupils. With this tool, children as well as their teachers and families can explore through interactive and engaging activities how OWE works, its importance as sustainable energy resource and other aspects of OWE; focusing on examples, current conditions and future perspectives in the North Sea regions from kids' and pupils' points of view. Kids4offshore is packed with textual and multimedia information for pupils but also pedagogic material for teachers.

The framework for kids4offshore was developed by the POWER project and where necessary by external experts. Pupils and their teachers have contributed by realising projects, which results were integrated into the platform. Thus, kids4offshore supports conventional teaching methods in two ways: Imparting knowledge of OWE through pupils designing material for the platform, and teaching children by using the information and implementing the pedagogical guidelines in school.

Kids4offshore consists of three learning units: one with textual information InfoZone, one with games and fun material PlayGround and one unit including pictures, videos and paintings PictureBook. In addition an area presenting already realised projects and a teachers' area complete the platform. The platform is designed to incorporate further material realised by pupils, classes and schools.

Kids4offshore was realised in a cross-project manner within the framework of the dissemination work stream in the POWER project. The research work was carried out jointly by the University of Applied Science Bremen (Germany) and the Junior Research Group Impulse at the Institute for Chemistry and Biology of the Marine Environment, University Oldenburg (Germany) with the help of "ECOLO – ecology and communication" (Germany).

2. Aims and Objectives

The mission of the kids4offshore interactive learning platform is to entertain children while educating and exciting them about offshore wind energy – referred to as "edutainment". This includes basic information on energy production, generating electricity from wind and the peculiarities of being offshore but also paves the way to questioning and discussing political, societal and environmental aspects. By using interactive and multimedia techniques children and pupils should find a platform that makes it fun to learn about OWE – being so absorbed that they don't realize they are learning.

One mayor objective is that a part of the content of kids4offshore should be delivered by pupils. They might develop little games, take photos, write stories, etc. that will be included in the platform. In doing so they have also to tackle the topic offshore wind energy but from another point of view (What are important aspects? Why do we need offshore wind energy? How will OWE look like in future? How does an offshore wind farm work? etc.).

Information presented in kids4offshore refers to OWE in general but also comprise information on the North Sea regions themselves. In that way children can compare

the common ground but also the differences between the regions and how they might learn from each other. Herewith the transnational aspect of the project is approached and it is strived for enhancing the communication between the regions.

This process is especially initiated and supported by teachers using the platform during classes and projects at schools. The concept is not only applied for the primary phase of the kids4offshore platform development but is further tracked. Thus, a sustainable tool is aimed at that integrates teachers' material and experiences made during different projects to be used further for educational purposes in school.

In summary the kids4offshore platform is used both, at home by kids and pupils and in classes by teachers introducing the topic OWE in classrooms following the pedagogical concepts introduced at the platform.

3. Structure and Content

According to the aims kids4offshore is used in classrooms by teachers and at home by kids and pupils. Thus, a combination of (1) enthralling contents to be used by kids and pupils, (2) a section comprising teachers' material presenting ideas of how to introduce the OWE topic in classes and (3) examples for already realised projects is made available.

Enthralling Content: The main factor for providing a better learning experience lies in choosing different media. Accordingly, it is not enough to present rough information in textual form but to create an inspiring environment that attract the interest by using interactive techniques. Underlined with edutainment strategies information and education will become fun. Against this background kids4offshore combines different techniques and media for imparting knowledge. The presentation of information is threefold: textual information (cognitive), interactive games/ fun material (active) and pictures/ videos (visual). An exemplary design of the realisation of this strategy is shown in the following figure.
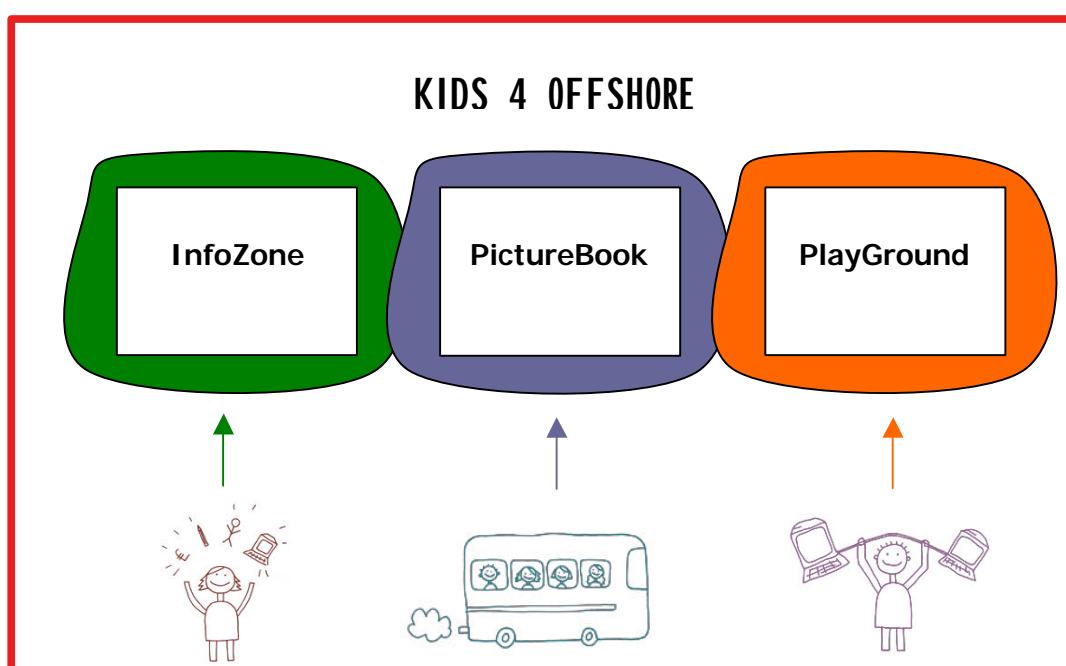
Teachers' Material: A further section comprises teachers' material including a theoretical pedagogic background and practical examples on how to introduce the topic wind energy. To realise projects in the class room implies a high-level of self learning competences of pupils. Consequently pupils have to express their own learning aims, planning and summing up their own results. This sort of free space in content design demands good preparation in terms of methodological variety from pedagogues. Teachers need a training tool box which they can offer their pupils with guidelines and methods. This is given at kids4offshore. The development of media in the course of kids4offshore is considered as testing environment for an inspiring way to incorporate the topic offshore wind energy into classroom settings.

Project Examples: Descriptions and results of already realised projects are included into the project section. The teachers' instructions, proceedings of the development of material, and field reports are integrated as well as documentation and results of the project. The material should be used as inspiration by other teachers for lesson plans and processes. In that way the utilisation of kids4offshore is secured also in the longer term.

4. Screen Shots of kids4offshore

In the following we are presenting exemplarily one screen shot for each section of kids4offshore:

Figure 1 Welcome page of kids4offshore

Figure 2 Introduction page of the InfoZone

Figure 3 Example of a picture story within the PictureBook

Figure 4 Welcome page of the Playground section

Figure 5 Introduction page of the pedagogical zone forTeachers

Figure 6 Example project within the Projects section

**Please visit the interactive Learning Platform at
www.kids4offshore.eu**

Contact for kids4offshore:

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