Case Study 1: Bitantart

1.   Overview of case study

The Bitantart project http://www.lacenet.org/edu365/antartida/ is a telematic project that emulates a virtual trip across the Antarctica. The students are involved in role-playing and become members of an expedition across Antarctica. They have to solve "enigmas" that emerge while they are travelling at the end of each stage. Classroom activities, on-line activities, forums, videochats and publications on the Web complete this exciting travel.

The projects consists of a trimester course of three hours a week divided in three one-hour lessons during which students work in pairs on one computer. The ages of the students are 12 to 16 and the course is adapted to the requirements of each grade level. This case study is based on a group of 12 – 13 year-old students (1st grade of ESO[1]).

The project is running at the school IES JONQUERES. The teachers guide the students through dialogue in order that they can correct and improve their work. Teachers review the students' materials before sending them to the virtual space.

2. Application of I-Curriculum matrix to Bitantart

The following table considers the project in the light of the literacies identified in the project so far. As stated, any project will not fulfil all aspects of the I-Curriculum, thus many statements are left blank; *italic* statements describe how the activity fulfils that statement. In **bold** there are the sections that are new from this case to I-curriculum framework.

	Transformational	Integrating	Operational
Exchanging and sharing information; Communication and collaboration			
1) Learners should develop the ability:			
a) to work with others to explore a variety of information sources and ICT tools in a variety of contexts		• To communicate effectively with others using appropriate terminology and be aware of information available - *Use the forums, publications, video chats and chats to complete tasks or solve "enigmas" working with others.*	• To exchange and find information through a variety of packages • To know the terms used within ICT, e.g., operating system, computer hardware - *Use the workspace to surf the Web, access to links in the Web, complete activities, publishing, give opinions…*
b) to interpret information and to reorganise and present it in a variety of forms that are fit for purpose and to use a range of ICT tools efficiently to draft, bring together and refine information and create	• To make explicit the desired outcome by considering the audience and what they require and analysing the impact of the various mediums that could be used. - *Use different*	• To recognise and infer information from different formats (science studies, literature reviews etc.) • To recognise how information presentation varies according to the audience and medium	• To use spreadsheets, word processing tools, databases – add elements, format etc. • To understand the basics of computers, processes to turn on and off systems, attach

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[1] **ESO**: Compulsory Secondary level Education.

	Transformational	Integrating	Operational
good quality presentations in a form that is sensitive to the needs of particular audiences and suits the information content	*programmes and modes depending on if the task is for the teacher or to be shared by the all class.* - *Learn from others products to transfer strong aspects to the own task.* - *Be able to understand the weaknesses and strengths of our tasks to empower them and improve in further assignments.* - *Create a product which fits to the goals stated before starting.*	*- Adapt the task depending on the peers and their origin (from other countries or communities) to present them and be understood and rich.*	peripherals and the operating system, virus checking etc. *- Use spreadsheets to do diagrams, databases to check for information, use text editors and power point to present assignments, etc.*
c) to use ICT to share and exchange information	• To act with others in a digital space on a collaborative task • To identify appropriate information for the task and the medium which it is most suited to • To be able to facilitate discussions as well as participate *- Participate in a forum, video chat, chat or e-mail with concrete aims and with effective communication.* *- Answer and ask doubts of others, share information, collaborate all together to solve the enigmas…*	• To know the style for communicating effectively through emails, attachments etc. • To understand email etiquette, display restraint in e-group transactions etc. • **To be aware of the use of the net-etiquette in all online environments.** *- Be proper while using the environment and adapt our language to the receivers taking into account cultural differences, roles, etc.* *- Respect the rules of communication in a virtual community (as the one created to follow the course in Lacenet with other schools).*	• To know how to send, add attachments, how networks work, be aware that no email is secret how to log on etc. • To be able to act securely (eg use of passwords) • **To know how to save and retrieve information to use and share.** *- Be able to send information attached in an e-mail to others (teachers, peers or students from other schools).* *- Be able to save the information in the correct route and retrieve it to go on working.* *-Be able to send information by e-mail to ourselves, save it a CD or disk and retrieve it when necessary.* *- Know how to access to the virtual workspace of the Lacenet network.*
d) to reflect critically on their own and others' uses of ICT to help them develop and improve their ideas and the quality of their work	• To incorporate the feedback into future work *- Learn from others' tasks and incorporate strengths to complete further tasks.*	• To be aware of the context and purpose of the information, e.g., reflecting on edutainment software	• To know the usages for packages

	Transformational	Integrating	Operational
	- Accept the critics and be able to overcome weaknesses.	• To be aware of what information is normally used in that context and how it is analysed • To know what format the information could be presented in *- Create rich products that respond to the concrete goals.* *- Understand the criteria information could appear and identify the most reliable.*	
e) to integrate values and discuss new ones into ICT-based learning experiences (e-values, emergent-values?)	• **To negotiate and/or adapt net-etiquette rules that match the context.** • **To value the importance of use of proper language in order to maintain and take advantage of relationships at personal, work or leisure levels.** • **To learn from cultures that are far away from ours** *- Promote values and attitudes in the students as the respect, open attitude, negotiation spirit, collaboration, responsibility, etc. that in the Lacenet context are basic to work together and follow the course.* *- Create habits as ask doubts, share sources, collaborate, read comprehensively, etc. that could be promoted effectively within the virtual environment.* *- Promote an environmental concern with our World and ecological problems that are caused by the global attitudes and by individuals as well.*	• **To know and understand both the explicit and implicit rules of a community or network.** • **To be respectful with others' opinions** • **To know the importance of use the net-etiquette** • **To take into account cultural differences and its approaches to communicate and establish relationships** *- Be proper when participate into communication and exchange processes.* *- Take into account the cultural and personal differences and the limitations that on-line communication could have in order to save misunderstandings and create a good environment for working within the Lacenet course.*	

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Researching: Finding things out			
2) Learners should develop the ability:			
a) to be systematic in considering the information they need and to discuss how it will be used how to obtain information well matched to purpose by selecting appropriate sources, using and refining search methods and questioning the plausibility and value of the information found	• To recognise their information needs and what are potential sources of information that might meet those needs- through research or collaboration or empirical investigation And specifically • To develop a research plan to find and share relevant information from a variety of electronic and non-electronic sources • To agree an evaluation framework for sifting and sorting for the specific purpose • Select appropriate source or sources and use research strategies suitable to the way in which information is stored or structured and the level and complexity of the solution required • Evaluate the process as well as the information • **To be able to use their own criteria for selecting reliable sources of information.** *- Negotiate with teachers and peers about the assessment and qualifications.* *- Learn from the experience and improve during the course to adapt better the searches to the goals.* *- Respect the dates to present the tasks and follow the search design agreed before starting.*	• Understand there is a variety of possible data that gives information on the same area • Analyse the research question to identify multiple sources of information • To be aware of where information can be found • To recognise the need to analyse these data sources, e.g., is it reliable? Requires background knowledge of organisations, people etc. • **To understand the importance of validating the information** • **To be able to select reliable websites** *- Be able to decide all together what is the task and ask for clarification if required* *- Validate and contrast the information to check its reliability.* *- Be aware of that the information is not always right, contrast with peers, teachers and ask for counselling if necessary.*	• Need to understand what information is required • Need to be able to access the information effectively and efficiently • To be able to use help functions and manuals • For the Internet, databases, resource CDs be aware of search methods like keywords, Boolean operators, formula within spreadsheets • **To know the selection criteria of the search engines when providing with the results.** *- Design the task before to start to agree on the goals of the task.* *- Ask to captain Xiles (the help in Lacenet) when required.* *- Use different strategies to search depending on the goal.* *- Be able to check different sources depending on the criteria we use.*
b) how to collect, enter, analyse and evaluate quantitative and qualitative information,	• Create new knowledge by combining information from many sources	• To be aware of where information can be found and that it will vary according to medium	• To use spreadsheets, word processing tools, databases – add elements, format,

	Transformational	Integrating	Operational
checking its accuracy	*- Be able to solve the enigmas combining information of different sources and presenting it in a rich and multi-modal product.*	*- Use different sources provided by the course, the Internet or traditional sources (teachers explanations, peers presentations, etc)*	checking procedures etc. *- Create products adapted to the requirements and to the format proposed by the course activities.*

Developing ideas and making things happen

3) Learners should develop the ability:

	Transformational	Integrating	Operational
a) to develop and explore information systems, solve problems and derive new information for particular purposes	• Understand the value of modelling and that different representation systems provide different interpretations *- Be able to model before starting and designing the products.*	• Be aware of the context of the task and hence what information is appropriate • To be able to identify omissions or gratuitous information *- Give response to the requirements*	• Be able to access the information • Need to understand how to analyse information (e.g. using formulae, checking procedures) *- Access to the information in different formats, use links…*
b) to use ICT to measure, record, respond to and control events by planning, testing and modifying sequences of instructions to use ICT to test predictions and discover patterns and relationships, by exploring, evaluating and developing models and changing their rules and values to design information systems and evaluating and suggesting improvements to existing systems	• **To be able to transfer strategies to solve new problems and needs** *- Be able to use previous knowledge and strategies used to follow the trip.*	• Be aware of the context of the task and hence what information is appropriate • Be able to relate the results to the instructions and outcomes • To be able to extrapolate within the environment *- Be able to understand the links that compose the tasks and the enigmas' solving to complete the whole trip.*	• Be able to enter or edit commands with the correct format for that medium • To log information and present it in a variety of methods, e.g., in spreadsheets use graphs, tables, charts *- Create a rich product combining information compiled.*
c) **Create goal-oriented products**	• **To understand the importance of producing an attractive and original product well-structured and adapted to the audience.** *- Understand why is better to do a kind of product or other depending if it is for publication, send to peers or present to the teacher.*	• **To take advantage of the different modes to produce richer products (multi-modal products)** • **To know how to use "Cut and Paste" to organize the information before creating a product.** *- Create a rich product combining information compiled, modes and rejecting redundant and incomplete sources.*	• **To know how to use a variety of programmes adapted to the goals.** *- Create a rich product combining information compiled.*

	Transformational	Integrating	Operational
Working practices and attitudes			
4) Learners should develop the ability: a) share their views and experiences of ICT, considering the range of its uses and talking about its significance to individuals, communities and society and also be independent and discriminating when using ICT To know how technology may develop and what future uses they may make of technology b) comparing their use of ICT with its use in the wider world **c) Know how to use the ICT tools that match their interests (participate in groups, communities, edutainment, etc.)**	• **To manage the leisure and study time when using ICT** *- Timing criteria to manage leisure use of ICT and work use.*	• **To learn while playing with ICT** *- Use the games and links provided by the experience to learn (f.i. how to navigate…)*	• **To know how to play and contact with people with the same interests.** *- Use the internet to find people with same hobbies, interests…* *- Use computer to play and find leisure and personal interests information.*