i.e.Us: The Game of “Spot the Difference” as an Online Learning Resource

Patrick Lynch
The University of Hull
p.lynch@hull.ac.uk

Abstract

The project “Intercultural Educational Dialogues: What unites us, what separates us!” is a pilot project funded by the Minerva action of the Socrates Programme of the European Commission. It started in October 2003 and will be completed by September 2005.

The main aim of the project is to research theoretically and practically what kind of learning takes place when school classes play a collaborative game based on the idea of comparing two objects or concepts. The game i.e.Us, as an in-school learning resource, will be initially implemented at schools across five European countries (Greece, Cyprus, Romania, UK, Sweden).

The aim of the presentation is to disseminate the project approach and to benefit from views of interested colleagues.

1. Goals of the project

The educational goals of the project are at the centre of the objectives of the contemporary European education as defined by the European Commission [1], since the game will help learners to develop: communication, negotiation and collaboration skills; skills in Information and Communication Technologies (ICT); language skills (in oral and written language) in the mother tongue as well as in others; attitudes and skills necessary for the co-existence of different cultures in the emerging European multi-cultural society.

2. Phases of the project

The implementation of the project consists of the following phases: study, definition and documentation of the pedagogical aspects of the game, including the intercultural aspect; requirements analysis of the web-based tool that will support the game; development of the web-based tool; design of the educational activities based on the game and development of the supporting material; in-school implementation of the game in two phases for the gradual involvement of teachers and students; documentation of examples of good practice; evaluation of the learning that was achieved and the learning process itself and dissemination of the results and innovations.

3. The name

The abbreviation of the game, i.e.Us, pronounced “indestās”, originates from the words Intercultural-Education-Unite-Separate in the project title. “i.e.” comes from the Latin phrase “id est” which means “that is” or “namely”. The word “Us” is the known pronoun. Therefore, the abbreviation means “that is us”, that is, all of us who take part in the game, who are alike and different at the same time.

4. Description of the game

The origin of the game is the paper-based, visual game of ‘spot the difference’. The ‘spot the difference’ game develops cognitive skills by identifying what is different between two apparently very similar images. In the i.e.Us game players collectively develop the descriptive ‘image’ of a theme and then progress to comparing their ‘image’ with another team’s ‘image’. The ultimate goal is to identify the similarities and differences between the two descriptions.

5. Learning method

The game can be considered as a spiraling learning cycle. Players will need to demonstrate an awareness of the ‘theme’ in order to create a description. This may require some research. The description is presented to the other team who will then query elements of it. A refined description is formed and the process continues until both sides are content that they understand the other team’s description. During this phase the teams will be developing an understanding of the similarities and differences presented by the other teams’ description to their own.
Additional benefits are the shared construction, by the players, of an agreed (implicit) language set for description of the theme and the (explicit) language set used for scientific comparison of the descriptions.

The game activities will offer a series of possibilities to those teachers who seek to find better ways for their students to learn. In particular, in the proposed learning method three elements are combined which are considered to promote and invigorate learning. These elements are: game-based learning; student collaboration and the use of Information and Communication Technologies (ICT).

6. Learning theory

Piaget’s constructivist theory offers a model for understanding the opportunity that the game i.e.Us offers to learners. According to Piaget “children are actively constructing their own understanding of the world” [2]. Peer interaction is very important because of the “constructive feedback” that peers can offer to each other.

Cooperation between peers can result in mental growth, when there is a conflict. The notion of conflict appears as an essential element in the study of the mechanisms of cognitive development. A cognitive conflict occurs when a child discovers that his or her belief conflicts with that of another peer. The elaboration of such a conflict can result in change. Cognitive conflict can motivate a child to rethink and re-establish his/her beliefs. On the other hand, cognitive conflict has social benefits for peers since it improves communicational skills and helps them realise the cognitive differences between people [3] [4].

Another appropriate theory for exploration through this project is Vygotsky’s socio-cultural approach. According to Vygotsky, the impact of the social is fundamental for the child’s development. Children’s potential to learn through collaboration can benefit greatly from the interaction with peers. Dialogue is very important for the exchange of ideas and the understanding of the world and can stretch the child’s own cognition. When repeatedly interacting with peers children internalise what they learn from experience and this can influence positively the development of their conceptual skills [5].

7. Themes

Learning outcomes from playing the game are both general e.g. collaboration skills, and specific e.g. perspectives on an historical event. Selection of an appropriate theme is central, therefore, to the required specific learning outcomes of the i.e.Us activity.

The method of the game of i.e.Us is suitable for a wide range of subject matters (geography, mathematics, poetry, music, computer science, history and others). This characteristic gives the game the necessary flexibility for its incorporation not only in the existing curriculum of a country but also for its adaptation into the curricula of different countries with diverse educational systems. In addition, the game can be adapted to different levels of educational systems, thus offering a wide range of case studies.

A second important element is that the learning process of the game is in principle multi and interdisciplinary.

The third strength, brought by the variety of available themes, is the intercultural dimension. Students will recognize that comparison is a scientific practice, but that the classification of the result of the comparison as a similarity or difference is a subjective matter, defined by personal or collective ideologies or presuppositions. Playing the game will allow students to test their own presuppositions.

8. The web-based tool

The web-based tool provides an environment for each team separately, which supports the team’s collaborative work, and a shared space for communication between teams. The interface also provides tools for sharing resources between teams and for developing the lists of similarities and differences.

9. References

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